THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

VOL. XI. ALBANY, N. Y., OCTOBER, 1863. No. 10.

PUBLISHED BY LUTHER TUCKER & SON,
EDITORS AND PROPRIETORS, 395 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

TERMS—FIFTY CENTS PER YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

THE CULTIVATOR has been published twenty-nine years. A NEW SERIES was commenced in 1853, and the ten volumes for 1853, 4, 5, 6, 7, 8, 9, 60, 61, and 62, can be furnished, bound and post paid, at $1.00 each—the set of 10 vols. sent per Express for $7.50.

"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at $2.00 per year, is issued by the same publishers.

The Cultivator & Country Gentleman.

SUGGESTIONS FOR THE SEASON.

Now that the labors of harvesting have closed, a sort of new era opens to the farmer in the form of labors for the autumn. A considerable portion of the labors of the farm consists in variously preparing for another season. Manure that has been already manufactured is to be spread for winter grain; and the absorbing materials for new piles of manure are to be collected and accumulated.

Manure in the form of compost, consisting of a mixture either with a copious amount of straw, well rotted down, or with layers of loam, turf or peat, should by all means be applied early in autumn; and the best application is either as top-dressing to grass lands, especially meadows, or to new wheatfields, after the last plowing has been done. There are several advantages of top-dressing meadows early in autumn. It assists in retaining the moisture of the soil which otherwise might become quite dry, and pinch the growth of the grass; it furnishes nutriment to the plants just after the half dormant season of midsummer, and they spring up with great freshness and vigor through the manure, and manure and grass together form an excellent and dense protection to the roots of the plants for winter. Partial failure often occurs in top-dressing by the careless and imperfect manner in which the work is done—it is scattered unevenly and in lumps; while a portion of the grass is unsupplied, other portions are too heavily covered or smothered. The same amount of manure spread evenly over the whole surface would be of triple value; and it may therefore be of great importance to employ a hand to pass, by regular strips, over the field, and break and scatter all lumps left by the first spreading. Much of the facility of spreading depends on the mechanical condition of the manure at the time, the character of the component parts previously used, the degree of moisture, &c. If quite wet when spread, it will be hard to avoid some lumps; in a few days, when these become dry, they may be broken or crushed with a roller and spread by passing a fine harrow over the ground.

We have on former occasions spoken of the advantages of top-dressing wheat about the time of sowing. There is no question that in most cases this is the best way of manuring the crop at the North. The only exception perhaps, is where the soil is already quite rich, and where it may promote too luxuriant a growth of straw. Its advantages are, enriching the surface near which most of the wheat roots remain; preserving the moisture of the soil at a time when it is frequently affected by drouth; giving a vigorous start to the young plants, and preventing their destruction by winter killing. We have known, in an extreme case, a moderate top-dressing of manure to part of a field of Mediterranean wheat, to give a yield of twenty five bushels per acre, where the rest of the field which was unmanured, was so nearly destroyed as not to be worth cutting. Several good farmers, who have long practiced this mode, have found it usually to increase the crop about eight bushels per acre. Another, and by no means the least advantage, is the assistance it gives to the young clover plants, as well as insuring their germination—making a difference in extreme cases equal to doubling the amount of seed.

In preparing manure for another year, an abundant supply of absorbents is important. These must vary with circumstances; where straw is abundant it answers a good purpose if time can be allowed for it to become well rotted down. The facility with which it may be used for litter, and being always easily spread in cold weather, it is most conveniently used. Turf answers a good purpose, but cannot be well employed when frozen hard. The same remark will apply to muck or peat, unless it has been well dried. In fact peat is of comparatively little value when used wet. It will hold, like a sponge, about nine-tenths of its weight of water; and hence, when saturated, cannot absorb the liquid parts of the manure. Every care should therefore be taken to have it well dried. It should be dug out of the swamps, if practicable, in summer, or early in autumn, and the present season is therefore the time to secure a large supply. A mistake is often made in throwing it in piles on the ground, where it sucks up, like a sponge, the water from the soil beneath. It should, therefore, be thrown on a platform made of poles, brush, slabs, or plank, and if the heaps cannot be covered with boards or thatch, they should be beaten smooth with a spade, so as to throw off the rains. This may appear to some to be much unnecessary labor, but it will amply repay all the trouble, and increase many times the value of the material used.

Farmers who have manure on hand too coarse to be

well applied in it its present state, should immediately form compost heaps. This may be done, in many cases, in or near the fields where it is wanted, and thus save the labor of drawing a part of the materials into the barn-yard and then back again to the fields. Fence-corner turf, and the washings of ditches and fields, form an excellent material. The latter may be found abundantly the present year after so many heavy rains, and compost heaps may be made near any large deposit. Such washings being entirely free from stones and easily shoveled, besides containing considerable rich matter, are well adapted for this purpose. The thinner are the alternating layers of manure and earth, as the heaps are built up, the more perfect and thoroughly mixed will be the compost.

Weeds.—We lately observed one of our best farmers going through his splendid crop of corn and clearing out all the remaining weeds, which had escaped his earlier cultivation. As every plant would have soon ripened its five hundred or a thousand seeds, and greatly increased the labor of eradication another season, the economy of this operation may be well conceived. Immediately preceding or soon after a rain, it is advisable to harrow all stubble ground that has not been seeded down, or which may be intended for plowing. The weeds will soon start and form a green manuring crop which will enrich the soil when turned under. The pulverization of the surface by the harrowing, also improves the surface and renders the subsequent plowing more perfect. Crops of turnips, beets, and carrots, are yet to make their best growth; they should, therefore, be kept constantly cultivated. Nothing can have a worse appearance than to see numerous weeds thrusting themselves above the rows of these crops. No farmer can admire the taste which induces some land-owners to allow their fences to become ornamented with elder bushes, briers, nettles, horse-thistles, burdocks, mulleins, &c., and wherever these exist, the present occasion should be seized for their utter extirpation. Briers, if cut low during the present month, are much checked in vigor, if not killed; but it may be best to remove such fences as are not line fences a few yards, and plow up and cultivate the old line of weeds. To clear out the ox-eye daisy, plow it under deeply during the present month; dig up or otherwise destroy every plant which appears before winter; plant with corn another season, and keep it well and frequently cultivated and hoed clean. If a good manuring can be applied, follow with another well cultivated corn crop, and seed down with a grain crop, sowing the clover seed heavily. The few remaining plants after this treatment, may be eradicated by hand, or by a repetition of the same course.

Other work for the season will consist in thrashing grain, always securing the straw well, both for litter and feed; commencing the fattening of animals; repairing fences, gates, and buildings; selecting the best and perfectly clean seed wheat; under-draining portions of land too wet to drain in spring; drawing off stone and building stone walls; clearing meadows of all kinds of obstructions to the mowing machine, such as stones, rocks, bushes and stumps; and carefully housing all kinds of farm tools, first cleaning them of dirt and brushing them up, and seeing there is a place for every one, and every one in its place.

A debating club lately discussed the important question, "Whether a rooster's knowledge of daybreak is the result of observation or instinct."

MANAGEMENT OF THE STRAWBERRY.

The interest that has been manifested of late years in the cultivation of this fruit, appears to be by no means diminishing. There are several reasons for the existence of this interest. First, the strawberry is the earliest of all hardy fruits; secondly, it may be increased and raised with great facility; thirdly, only a few weeks are required from the time of planting to the ripening of the first moderate crop, and only a year to an abundant supply; fourthly, new varieties are obtained with remarkable facility, the seed of every pistillate sort being a cross from some staminate, and only needing to be planted to produce new crosses. Added to all these, the delicious quality of the fruit, it is no wonder that every one who owns a rod of ground, should wish to try his hand at its cultivation.

Cultivating in "hills," as it is termed, is much better than allowing the plants to run broadcast, in all cases where injury results from drouth—the whole surface covered with plants, carrying off the moisture several times more rapidly than the few plants forming the hills. Every one has doubtless observed how much sooner the berries dwindle and dry up in the matted bed, or the thickly growing belt.

Transplanting Strawberries.

The best season, or at least that requiring the smallest amount of labor, is in spring. Every plant is sure to live, and may be set out as quickly as a cabbage plant. There are some advantages, however, in summer planting—the newly rooted runners may be taken, and if the work is well done, the beds will bear about as well the next season as spring-set beds. To insure their rapid growth, and secure them firmly in the soil before winter, the roots should be evenly spread on all sides. The best way is to make a shallow hole, about half a foot in diameter, and then with the hand place a small mound of earth in its centre, rounding the top of this mound with the palm of the hand. Next take the plant, and if the roots are long, cut them off within two or three inches of the crown; then spread them out like the arms of an umbrella, so as to cap this mound with the plant on its top; then draw the earth over the roots and press it down firmly, and the planting is completed. A few seconds only will be required for each plant to the practiced hand. It will generally be best to clip off all the larger and older leaves, leaving the younger and fresher for a vigorous start. Settle the earth by watering, and then cover the surface with an inch of fine manure, which will keep the soil moist. Treated in this way, every well set plant will be sure to grow.

Innumerable varieties are coming rapidly into existence; and of those that are lauded as being superior to any of the old sorts, perhaps one in a hundred will ultimately be found equal to them. All new sorts are apt to please best at first, because the planters, having paid a high price for them, give them excellent care until they become cheaper and more common, when they are neglected, grow to a small size only, and are cast out and discarded.

Guano.—An important survey of guano deposits on the coast of Peru has been concluded, and the stocks were estimated at 1,500,000 tons on the Macabi islands, 2,500 000 tons on the Guanape group, (opposite the point of St. Helena,) and 4,000,000 tons on the Lobas Island, representing a total value of $230,000,000.

PRUNING THE RASPBERRY.

EDITORS CO. GENT.—Are the Hudson River Antwerp Raspberries hardy enough to survive the winter without being laid down? When they have been laid down, will they resume their upright position upon being uncovered, or must they be tied up to stakes? The raspberry canes of this year's growth are six to seven feet long, and interfere considerably with their cultivation. Should they be topped, or will it be best to wait until spring before doing it? How late will it do to bud cherry trees? G. L.

New-Brunswick, N. J.

The Antwerp Raspberry is not entirely hardy in the Northern States, except in particular localities. It usually succeeds best when laid down with a slight covering of earth—a small mound of earth being placed at the root, over which the stems may be bent without breaking. The stems from two adjoining stools may be bent toward each other, and pegged down together, and the whole thus covered at one operation. On being uncovered in the spring, they slowly assume an upright position, but are best if staked. The present season's canes are usually cut off early the next spring, about four feet high. They may be cut back the present autumn, or about the time growth ceases, if they are covered; but as they are rendered somewhat tenderer by cutting, they should be left untouched till spring, if intended to stand exposed.

It rarely answers to bud cherries much later than the middle of summer, as they usually cease growing soon after that period. In rare instances the growth has continued much longer, and we have sometimes budded them successfully near the commencement of autumn.

STACKING CORN FODDER.

EDS. CO. GENT.—I notice in the Co. GENT. of Aug. 6th, a valuable article on the curing and stacking of corn-fodder. The mode of curing is similar to the one practiced here, but the stacking is different, and I will try to describe our mode. I think it has advantages which Mr. Allen's has not. I also think that those who practice Mr. Allen's plan if they try this, will think it preferrable to the one referred to.

Instead of building a round stack we build a long rick as near the feeding yard as convenient, always leaving enough space around the rick to drive with a load of fodder.

To start the foundation of the rick, place a row of bundles perpendicularly with the butts firmly against the ground, and a row on each side, with the tops pressed closely against those of the first row, at an angle of about 60 degrees.

The foundation need not be made as long as the rick is wanted, before building up, as more can be added whenever it is needed or the stacker finds it convenient. Place the butts of the next row against the bands of the last. The tops will extend above the others, so as to cap those beneath, and prevent the water from entering and spoiling the fodder. Then commence again at the ground, and carry up a tier on each side, as before, which will now take three rows to reach the top. The last row of each tier should cap the rick. Every tier that is carried up will take one more row, than the one preceding it, to cap the rick. We put eight to twelve rows on each side, which makes sixteen to twenty-four through the rick at the base, and as high as it is convenient to pitch.

The stacker should walk on the bands of the bundles as he places them in position on the rick, excepting the rows on the ground. Although the sides seem steep he will not find it difficult to do so if the straw, of which the bands are made, is good.

Always build from one end. Then when wanted to feed, commence at the other, and take off as much as is needed. Don't take from the sides, but from the end, which will leave the rick as weather-proof as it was before.

By building in this way the farmer may suit his convenience in stacking, as he can add to the rick, either at the sides or end. Fodder put up in this way will keep fresh and nice all winter, providing it was in good order when stacked, and the top of the rick well closed. The bundles being placed at such an angle the water must enter at the top to do any damage. Two men with a team can haul and stack the fodder of 15 to 20 acres in a day. We generally put that quantity in a rick, and I have never seen any spoil by heating and moulding.

Farmers in this country never feed their cattle or sheep hay, but depend altogether on their fodder for coarse feed. Let all who have fodder stack it, and they will find it will go farther, and be nicer than that which is left in the field in piles to be dug out of the snow whenever they want it to feed. Their stock will thrive better, and relish the fodder better, and themselves rest better when the winter storm is raging. F. C. W. *Columbus, Ohio.*

SHEEP-MARKING, TICKS, &c.

In answer to "Lockport," I will give my experience in marking sheep, destroying ticks, &c. I first used turpentine, linseed-oil, and lamb-black, stamping my initials on each sheep; in a few weeks not a mark was legible. I next tried boiling tar, keeping it hot by placing the vessel containing it in a kettle of coals. This was legible until the fleece was removed. I tried Venetian red and linseed-oil, which soon became obliterated. Lastly I tried coal or gas tar, which makes a distinct and durable mark. Mark ewes on the side, wethers on the shoulder, and bucks on the rump. Sometimes stamp with my initials cut in a block of soft wood; also use a stamp cut in a circular form, making a ring; and when in a hurry use the large end of a corncob, making one, two or three spots near together. By marking sheep of different sexes on different parts of the body, it facilitates the assorting of a flock. Last spring, marked all of my breeding ewes with copper labels, bearing a number stamped upon the face, suspended from the ear by a wire ring; but several of them are now missing, having been torn loose.

I have purchased sheep having ticks on them, three or four times, and they soon spread throughout the flock. Always destroyed them after shearing. Generally used tobacco water. A pound of plug tobacco, torn to pieces and boiled for some time in a vessel of water, then diluted with about thirty gallons of water, I think would be sufficient for fifty lambs; and more, if the liquid was not wasted. Dip as soon after shearing as the ticks leave the ewes, as the lambs will be easiest to handle while small. Immerse the whole body except the nose and eyes. Press the liquid out of the fleece as much as possible. Too strong a solution will kill the sheep. I know a buck which cost $100, killed thereby. Last spring I saw several articles in different papers strongly recommending the use of sulphur. I purchased ten lbs. of flour sulphur, mixed it with about twice its bulk of salt, and gave the sheep liberally for several weeks—as much as two quarts per week to eighty sheep. Result—not a tick have I seen upon one of my sheep for two months, and have examined them frequently. My sheep are mostly Spanish Merinos; recently improved by crossing with a pure Atwood buck. Ticks appear to flourish upon the fattest of the flock. DAVID STREET.

Columbiana Co., Ohio.

To Prevent Posts Heaving by Frost.

Now that it is becoming so common to construct post-and-board, or post-and-rail fence, instead of the old and partially obselete worm fence, it becomes a matter of great importance that they be well and firmly made. Fig. 1. The most frequent cause of annoyance and failure is

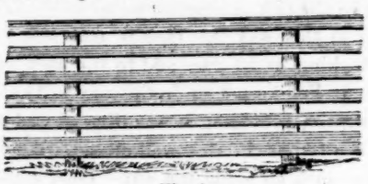


Fig. 1.

the upheaving of the posts by frost. On wet grounds some well made fences have thus been ruined in a few years. The posts are raised a foot or two by successive winters; the twisting thus occasioned distorts the fence and loosens the boards, and the whole is bent over and sometimes prostrated by winds. Fig. 2.

Various expedients are resorted to in preventing this

Fig. 2.

evil. It occurs but slightly on dry ground; hence the practice of placing a tile drain under the line of the fence, and setting the posts as the ditch is filled, is found to answer an excellent purpose. Ramming gravel around the posts to allow the water to run quickly downwards, facilitates this object, and the posts, never becoming water soaked, will last twice as long as when frequently subjected to soaking and drying. Another, but less effectual mode, is to plow a furrow on each side, and bank up the earth on the line of the fence. Another method is to bore a two-inch auger hole through the post near the bottom and drive in a pin that will project two or three inches on each side. Stones are placed on the ends of this pin, and the earth firmly rammed into the hole over them. Fig. 3. The best and most effectual mode, however, where the land cannot be thoroughly drained, is to cut a notch on each side of the post near the bottom, and then place the points or edges of two flat stones into these notches. Fig. 4. The earth being firmly rammed down above them, holds the post immovably in its place. As there is no side strain to the

Fig. 3.

Fig. 4.

Fig. 5.

post at the lower end, these notches may cut it half off without endangering its strength; and as the post does not rot so far beneath the surface, (but only near the top of the ground,) it never becomes weakened at this place. Fences which have stood several years, and become raised by the frost, are often lowered again to their orignal level by digging a hole down by the side of each post and under it, and then dropping the whole fence together. The fence may be secured in its place at this time, by cutting in notches at the lower end on one side, by means of a long-handled chisel and mallet, and inserting the stones before the hole is again filled. Fig. 5. This may be easily done, while boring and driving in a pin would be impracticable.

CLEANING CLOVER SEED.

Can you give me any information as to the necessary machinery for gathering and saving cloverseed, or can you direct me to any other source where I can procure reliable information on the subject? An answer through your journal will much oblige

Spring Station, Ky. M. B. W.

There are three stages of the process of raising cloverseed—namely, ripening the crop in the best manner; cutting and securing it; and thrashing and cleaning it. We are unable to give accurate directions as to the best time of growing the seed in Kentucky—but the same general rules adopted here will apply, if modified to suit the climate. The usual practice is to mow or pasture the crop early in the season, and take the second growth for the seed. As the ripening of the seeds considerably exhausts the plants, it is important that the early mowing be done before many of the first blossoms ripen; and for the same reason the practice of pasturing succeeds best, as the plants are kept down. The crop to be reserved for seed should commence growing early in summer, on or before the middle of June in the Northern States. Late in summer the whole surface will be a profusion of clover blossoms, and a month later the crop may be cut. The cutting should be done rather early than late, or by the time two-thirds of the blossoms have ripened—when the earlier heads will be full of seed, will shell out less, and the stalks will be useful for fodder. If deferred till later, there will be less seed and poorer fodder, and the crop will be more difficult to dry. It may be most easily cut with any combined mowing and reaping machine, with the platform on, and a board placed behind to keep the clover from falling off, until enough has accumulated for a heap, when it is thrown off with the rake; when dry enough it is drawn in the barn for threshing. When cut with a scythe by hand, two swaths should be thrown together to facilitate gathering.

The threshing is best performed by first running the whole crop through a common threshing machine and thrown on a shaking separator; the broken heads or seeds fall through; the straw and lighter stuff is cast off. By passing the seed again through the threshing machine the heads are broken finer, and in this condition it may be sown in the chaff by farmers who raise their own seed, although it cannot be so evenly spread as the pure seed, and must therefore be applied copiously. The removal of the chaff so as to fit the seed for market, must be done by a clover machine.

There are various kinds made by different manufacturers and sold at all the large implement stores in the cities—the price varying from $75 to $100. Wheeler, Melick & Co., and I. T. Grant & Son of Albany make excellent clover hullers. In some places the owners of the machines carry them about; in others stationary machines are kept, the farmers drawing the seed to them, which may be done in large boxes placed on their wagons, or in hay racks lined with boards.

☞ The Agricultural Statistics for the township of Hempstead, Queens Co., collected by JOHN HAROLD, Esq., show the following crops for last year:

	Acres.	Product.	Av. per Acre.
Hay,	6,901¾	8,696½ tons.	1¼ tons.
Wheat,	1,423¼	25,805 bush.	18⅛ bush.
Oats,	1,837¾	44,108 do.	24 do.
Rye,	2,068	29,416 do.	14 1-5 do.
Barley,	10¼	177 do.	17 do.
Buckwheat,	945¾	15,877 do.	16¾ do.
Corn,	3,579½	132,478 do.	34½ do.
Potatoes,	1,333¾	118,253 do.	88 3-5 do.
Roots,	88	28,238 do.	321 do.

FARM MACHINERY.

Every year increases the necessity for substituting horse for hand labor. The superior cheapness of the former is shown by the simple estimate, that while the strength of an active man is only one-fifth that of a horse, the cost of the latter, as usually kept by farmers, is but a little more than one-third; in other words, a horse will accomplish any heavy labor that he can perform at about one-twelfth the cost of employing men to do the same. This estimate will, of course, vary with localities and circumstances, but is a fair, approximate average, and shows the importance of applying this cheap strength by means of farm machinery to every possible operation.

The present war has withdrawn from the farms of the North nearly a million of laborers. The inquiry occurs, what part of this loss is supplied by agricultural machines? We have no statistics to show the actual number of mowing machines, reapers, horse-rakes, horse-forks, thrashing machines, planting machines, &c., in present use. But it is not difficult to make an estimate of the advantages to be derived from their general introduction to all the farms of considerable size in the North. There are at least one million farmers in the Northern and Western States, whose tillage lands are sufficiently extensive to render their use eminently economical. The meadow lands of each of these farmers will average, say, twenty acres; to cut these acres by hand would cost twenty dollars, more or less, and only about ten dollars if performed by mowing machines, that is, a saving of ten dollars to each of these million farmers. This estimate does not take into account the impossibility of securing enough hands, at the critical period of haying, to perform all this labor at present wages. The advantages which the rapid execution of this work by machinery would give in the way of hastening its progress, in preventing over-ripening, or in escaping storms, would perhaps be as much more. In other words, twenty million dollars would be saved annually by the general introduction of mowing machines. Reapers would doubtless accomplish as much more; although they do not lessen the amount of hand labor actually employed so much as mowers, they prevent a greater loss, which would result if the crop were not gathered at precisely the right time. We may, therefore, put these down at twenty millions more. The various other improved machines and implements would probably, if all taken together, swell the amount to at least one hundred millions yearly. This vast amount would go far towards supplying the labor withdrawn by the war; and when we take into the account the fact that some of this machinery, and more especially the harvesters, supply a place and accomplish a service, at a critical period, which the million laborers could not do, it may be questioned whether the machinery, on the whole, is not the more important of the two.

This estimate may be corrected in its details—the object being to show the vast importance of every improvement in farm implements and machines, in a national point of view. English political economists predicted ruin in the Northern States by the withdrawal of farm laborers to carry on the war; the London Mark Lane Express annually publishes its stereotyped prediction, that no more wheat can come from America; and without machinery this prediction would doubtless prove true.

There are two individuals who hold prominent places among their countrymen—the inventor, and the political office-seeker and speech-maker. The latter makes himself prominent in the crowd, and often receives adulation at great assemblies and through daily newspapers. The former is found alone in his study or workshop, and excites no attention at the time, but like a Watt, an Arkwright, or a Fulton, to the commercial world; or a Hussey, or Ketchum, to the agricultural interest, their unostentatious productions have proved far more essential to the safety of the country, and saved it from desolation in the hour of peril.

Nothing has contributed more to disseminate correct information on the merits of machines than agricultural fairs, aided by agricultural periodicals. We trust that the officers having charge of these exhibitions will continue to give a prominent place to the machinery department, and to offer increased inducements to exhibitors; and that whenever practicable, these machines shall be seen in operation on the ground, or provision be made for their special trial.

SOWING CLOVER SEED.

My clover sowed last spring did not "catch" well. Will it do to let it remain as it is, and next spring to sow on more seed? Will it be to my interest to plaster it this fall or next spring, or both times? What kind or kinds of seed, and in what proportion, is it best to sow expressly for sheep pasture on dry land, and at what time of the year? Will some practical farmer give me his advice through this paper? JAS. MCCOLLUM. *Newfane, N. Y.*

Not knowing all the circumstances, we can only give conditional advice. If the ground is clean, the field might be well harrowed late this fall, and more clover seed sown in the spring; but if much infested with weeds or grass, it may be best to plow up the land as soon as convenient, and when it is re-seeded, do the work well by bringing the soil into the best condition, applying a light top-dressing of fine manure, and using plenty of seed. An objection to re-seeding next spring if the land is to be pasture, would be the injury which the young clover plants would receive by being trodden under foot. The small or "medium" clover is the best. Apply the plaster early in the spring. For sheep pasture, mix timothy with the clover seed.

CANNING GREEN CORN.

In answer to A. L. WOOD, green corn may be cured in the following manner: Procure good tin cans made for this purpose; glass jars will not answer. Boil the corn on the cob 5 minutes; cut it from the cobs and fill the cans within half an inch of the top—add half a tumbler of the liquor that the corn was boiled in to each can; no other ingredient need be used. Solder up the cans tight, and put them in a boiler of water and boil 5 hours. Take them from the boiler and prick a hole in the cap of each can and let the gas pass out. Solder up the hole and boil one hour longer, when they may be set away in a cool place, and will keep any length of time.

Green corn is considered the most difficult thing to keep, and requires a longer time to boil to coagulate the gluten. If boiled in the cans in this way, it retains all its original flavor. I have practiced this method for several years, and have corn in perfect order put up in this way in 1857.

Tomatoes may be put up and boiled in this way 15 or 20 minutes, and need not be opened as in the case of the corn.

I first procured some information from a large fruit packing establishment. All fruit or vegetables must be in as fresh a state as possible for this purpose. L. BASSETT.

North Haven, Conn., August 27, 1863.

Keeping Cattle, Horses and Sheep Together.

MESSRS. EDITORS—The economy of keeping horses, cattle and sheep in a pasture together, or at the same barn, is perhaps not generally considered or understood by many farmers. There are at times, some disadvantages in keeping different kinds of stock together, but so far as the economy of feed is concerned, there is evidently a saving by so doing.

From experiments and investigations made on this subject, it has been accertained that domestic animals eat and reject plants in the following proportions:

The Cow	eats	276	plants, and rejects	218	plants.
Goat	do.	449	do. do.	126	do.
Sheep	do.	387	do. do.	141	do.
Horse	do.	263	do. do.	212	do.
Hog	do.	72	do. do.	271	do.

Every farmer has noticed that many plants that are eaten by one kind of stock, are rejected by others; that cattle or sheep are averse to eat the grass that grows in those places where they lay nights, or in the shade of trees where they get together, in consequence of the unpleasant flavor given to it by their droppings—yet the horse will eat it readily. The horse will eat many coarse grasses and weeds which cattle and sheep will refuse. For this reason will be seen the economy of keeping horses, cattle, and sheep in the same pasture, in suitable numbers and proportions.

I have heard some farmers say that they did not think that it cost anything to keep a horse or colt in a pasture with cattle, as they would get their living on that which the cattle would not eat. For my own part, I do not think the saving is as much in the summer, when they can select their own feed, as in the winter, when they get only such as is given them.

It is generally thought that sheep and colts do well when kept together. Colts will eat the coarser portions of fodder which sheep leave, and do well on it. This fact was forcibly brought to my mind, while visiting the barns of a noted sheep-breeder, the spring of 1862. There were about fifty sheep, which were about equally divided and kept in two separate pens. The hay with which they had been fed was a mixture of red clover and timothy, and the sheep were literally up to their knees in the coarser portions of the hay which they had pulled from their racks on to the floor and rejected. This might not be entirely wasted, as it goes into the land with the manure; but if this waste hay had been consumed by colts, it would have been made into good manure, and the gain or growth on the colts saved. It was the opinion of both myself and the gentleman who was with me at the time, that a two-year old colt might have been well kept, in each of the pens, on the hay which the sheep wasted.

During the latter part of last winter, while feeding my coarse hay, the orts which my cattle and sheep left, were given to my horse. They were eaten up clean by the horse, who appeared to do as well as when fed on fresh hay, and many days but very little other hay was fed to the horse. A friend of mine who had a horse that was troubled with the heaves, kept it a part of the winter entirely on the hay that his other stock left. The horse did much better during this time than when fed on fresh hay—the cattle picking it over, removed the dust and lighter portions of it, which had the same effect as wetting it before feeding it to the horse. In cold and dry weather in the winter, when my barn yard is covered with snow, I frequently take what is left by the cattle and sheep after feeding in the stables, and scatter it in the yard. The cattle will always clean up that which the sheep have left, and the sheep will eat a part of that left by the cattle, and the colts will pick up what is left by both cattle and sheep, so that between them all but very little fodder of any kind is wasted, but much is saved during the winter that would be wasted if only cattle or sheep were kept, or kept exclusively by themselves. C. T. ALVORD.

Wilmington, Vt., Aug., 1862.

The Dairies of Orange County.

We take the following extract from the Survey of the Agriculture of Orange County, prepared by Hon. G. DENNISTON for the forthcoming volume of the Transactions of the N. Y. State Agricultural Society:—

No county in the State has a higher reputation for its butter, and probably no county produces more of the products of the dairy, or commands higher prices for those products. It may be said to be the principal business of the farming community. Since the opening of the New-York and Erie railroad through the county the business has been divided into *milk* and *butter* dairies. The milk sold in New-York city from the county, is deemed the richest and the best. These milk dairies are located along the line of the railroads, within a reasonable distance from the several depots. The milk is cooled and put in cans holding from fifty to sixty quarts, and carried to the depots in time for the "milk train" to the city, which runs daily from Port Jervis. These milk dairies are very profitable, yielding about $45 per cow, per annum.*

There are many *essential* things connected with the dairies of Orange county: farms naturally inclined to grass, an abundance of pure cold water, industry, perseverance, a close application to the business, and *experienced dairy maids.* These are not found, generally, out of the county, and account for the inferiority of the product elsewhere.

Among the Orange county dairies all are found to assist, the men, the women, the boys and the girls; they all join in milking and carrying the milk into the cellars; there the girls strain the milk, skim the cream, churn and work the butter, and pack it into tubs and firkins. The churning is generally performed by dog or horse power. The churns are large, generally barrel or two barrel churns, worked with a dasher, *none of your new-fangled things of small capacities, and smaller value, worked sitting down.* A churning produces a large pile of butter, and the packages are readily filled. We have known dairies of from 40 to 125 cows, and their products ranging from 80 to 250 firkins per annum. These dairies, when marketed, yield to their proprietors enough money to purchase a farm, and no class of her citizens are more thriving and independent than the dairymen of Orange. They are generally *before-handed*, and have money to loan, or to invest in real estate.

There is a method observed in the manufacture of Orange county butter. The cellar where the milk is kept is cool, well ventilated, clean. The milk is strained into pans containing from ten to twelve quarts each. When the weather is warm the pans are set on the cellar bottom, otherwise on shelves. The milk is left until it becomes "loppered;" then the milk and cream are churned together. Some dairy-women skim off the cream and part of the milk, and churn that, but the best butter is churned from *milk and cream.* The churn used is the common "dasher churn," driven by dog, horse, or hand power, according to the size of the dairy. The churn is filled half or two-thirds full with milk, and a pail of cold water added before starting to churn. In cold weather warm water is put in. The churning is performed with a slow, regular motion, and proceeds for an hour to an hour and a half, when the butter comes, and another pail of water is added. The butter is then taken out and washed through water in a large tray, and is then salted with about one ounce of pure Liverpool (Ashton) salt to each pound of butter. The salt is worked through the butter. It is then put in a cool place and left to stand an hour. It is then carefully worked over and set aside for five or six hours. It is worked again and set in a cool place until the next morning, when it is packed. In working the butter care is taken to work out all the milk, but not to work it too much, so as to break the grain and make it *salvey.* If the milk is left in, the butter will become rancid. If the grain is broken in working, it will be greasy or salvey. Butter worked just enough will be solid, sweet, yellow, and the drops of brine on it will be clear as crystal.

MARKETING FRUIT.

Dr. HOLMES, alluding to the propensity of men to defraud in marketing fruit, thinks he should regard it as an evident proof that millennium was close at hand,

> When berries, whortle, rasp and straw,
> Grow bigger downward through the box.

We should be sorry to have to wait as long as Dr. Holmes has here indicated, for the cultivators of apples and pears to put up a creditable article for market, by rejecting all poor or injured specimens from the middle or bottom of their barrels. It is true that it has been too common for some of the owners of orchards to attempt to thrust off bruised and knurly specimens by concealing them from sight. Without taking into consideration the miserable pick-pocket feeling which such men must have when associating with honest people, it is the worst policy they could adopt even so far as mere money-making is concerned. For one detection of rascality stamps a man for the rest of his life, and he must of course expect to pay his share of the inspector's fees in future. We are glad to be able to state, however, that such management is rapidly becoming obsolete, and that intelligent fruit raisers take a pride in establishing a reputation for fair dealing and fine fruit. There is, probably, no business in which such a reputation will go farther and prove more advantageous. Consumers who understand the difference between good and bad fruit, are willing to pay a higher price for what they use, if they can be sure of receiving a good sound article, and be insured against imposition. It is not uncommon for those residing in cities who purchase apples for themselves, to secure a supply at an advanced cost, for the sake of having the best, when during abundant seasons they could purchase a common article in market at a low rate. As the whole community becomes better informed in relation to all our fine varieties, those who cultivate and market the best will reap the largest profits. The city dealers will learn that the best only will please their customers; and they will consequently establish a permanent list of such fruit raisers as uniformly give them the best varieties, picked, selected, and packed in the most perfect manner.

Hence every land owner who is about to plant extensive orchards, should set out only such as are of high quality, as well as of fine appearance.

But they must not fall into the common error of supposing that having planted an orchard they will have nothing more to do than to gather crops of dollars from their trees. In order to have good fruit they must raise healthy, thrifty, well pruned trees. The soil must be sufficiently cultivated, and, if necessary, kept manured. As soils vary exceedingly, the best rule is to observe the length of the shoots on the growing trees. In some localities, as in the rich regions of the west, the growth may be too rank and not sufficiently hardy to endure the winter if much manure is applied; in other regions there may be no danger of this kind. As a general rule the largest annual shoots of young trees should be from two to three feet long; on older bearing trees one foot to 18 inches. But good and intelligent orchardists will know enough of their business to settle these points without special instruction.

There is one requisite for success in market orcharding that is not sufficiently appreciated. This is thinning the fruit on the tree. Crowded branches, as well as crowded fruit on the branches, and puny, half flavored specimens go together. Some successful cultivators have found by recent experiment that the same number of bushels may be frequently grown on a tree after two-thirds of the fruit has been removed by thinning; these specimens being larger and more readily gathered; and what is still more important, they have often commanded more than double price per bushel. E. Moody of Lockport, sold his large crop of peaches from the thinned trees at $1.50 per basket, when those not thinned were disposed of with difficulty at 50 cents. Another advantage of this practice is preventing the injury to trees from overbearing. President Wilder states that one of the best cultivators of the pear in the vicinity of Boston, has adopted a system which allows no more useless wood, nor more fruit spurs, and no more fruit than the tree can properly sustain. As a consequence he produces every year superior fruit, which commands the highest price. He states that another cultivator, who raises an annual crop of the best apples, says that the secret of his success is the thinning of the fruit, and he has no doubt of the economy of the practice.

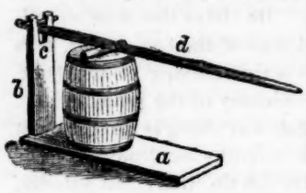
After raising good fruit, the next thing is to gather it without injury. It should be carefully hand picked. The mode figured and described in the Co. GENT. last autumn, (and figured again a few weeks since,) is an excellent method for apples and pears when they cannot be reached from the ground. If the specimens are not hard, a small number should be placed in the bag before emptying at a time. Hand baskets with hooks answer well, but they should be so small that they may be placed within the the barrels to be filled and turned for emptying—for it is obvious that the fruit will be ruined if poured into the barrel at the top. R. L. Pell of Ulster county, known to many of our readers as a successful orchardist, and for the high prices received in Europe for his superb Newtown Pippins, never allows his pickers to handle more than two apples at a time—they were thus taken, two at a time, from the baskets in which they were gathered; they were placed two by two in a heap before barreling; they were thus laid carefully into the barrel, and when transferred from wharf to vessel, and from vessel to wharf, the barrels were received on men's shoulders and handled as carefully as we commonly handle large looking glasses. Ten dollars a barrel was the common price for well selected fruit thus cautiously put up and conveyed to market, and in one instance by extreme care in selecting, $21 per barrel were received.

Where fruit is sold by the quantity, barrels are always best for packing, as well as for cheapness and strength as for the ease with which they may be moved without jolting. Apples will keep best if exposed in heaps two or three weeks to open air before barreling—as some of the exterior moisture escapes, and they become less liable to decay. The few minutes additional time required to deposit them carefully and without dropping them into the barrels, will be many times repaid by the fine condition in which the consumer finds them. There should always be at least two barrels placed side by side when filling; one should be marked "extra," and as the assorting proceeds should receive none but the finest specimens; the other only such as are decidedly good; all the rest, including those that are bruised, scabby or marked with insects, should be rejected for distant market, and used only for home purposes, such as stewing, converting into cider, or feeding to domestic animals. In well managed orchards, where pruning or thinning the branches, thinning the fruit, and proper cultivation have been attended to, this third

or inferior portion will constitute but a very small part; in other orchards, grown up with suckers, weeds and grass, and with tops consisting of brush and stunted branches, the labor of selection will be small, for the whole crop will be of this third portion.

Apples should be so snugly placed in the barrels that there can be no rattling when they are moved. They should, therefore be slightly shaken several times while filling. A little practice will enable any one to do this sufficiently without danger of bruising. The upper stratum should be made as straight and uniform as practicable, and at such a height that the head of the barrel will slightly indent them—the dry wood absorbing the moisture and preventing decay.

A simple contrivance is adopted by packers for placing the head in position, and is shown in the annexed sketch.



It consists of a plank, *a*, on which the barrel stands, into one end of which is dovetailed an upright piece of plank, *b*, a little higher than the top of the barrel. A slot, *c*, is cut in its upper end, and a pin runs across to receive the end of the lever, *d*, which may be 6 or 8 feet long. A round board is used as a follower, to be placed upon the head; and across this board is placed a cylindrical piece of wood about 3 inches in diameter, (and flat on the lower side,) on which the lever is placed. A moderate pressure at the end of the lever, and a little practice in its use, will enable the operator to bring the head to its position with great ease, precision and accuracy.

The vital principle, as is well known, keeps an apple cool while connected to the tree by its stalk, even if exposed to the full rays of the burning sun, but the moment it is picked it begins to assume the temperature of the surrounding atmosphere. Heat always hastens decay; a low temperature prolongs the sound condition of the fruit; hence the importance of placing apples, both before and after barreling, in a cool building, until their safety requires their removal to the cellar. An apartment opening to the north by means of large windows, or wide doors that may be readily closed on freezing nights, usually answers the purpose best.

These suggestions will be variously modified by every good cultivator or skillful marketer; they are intended mainly to urge the importance of raising the best fruit, cultivating it in the best manner, and packing it for market in the very best style—as being the most profitable as well as satisfactory way of doing this kind of business.

PLANTING STRAWBERRIES.

The exhibition of remarkable strawberries in different parts of the country, during the past season, and the attention given to the subject by the press will induce many to attempt the culture of this most excellent fuit, who have never before given it their attention, and the culture will be widely extended the coming season. The strawberry is easily and cheaply grown, and no family who has a spare rod of ground should be without a bed of the plants. It is frequently the case that the planting is recommended in the latter part of summer, or early fall. In a wet season, like the present, should it continue so, the plants may be set in the fall, but the spring is always the best. In the most favorable season when plants are set in the fall, they seldom get so firmly rooted that they are not liable to be drawn up by the frosts of winter, and materially injured before spring. In a dry season, such as usually prevails, at the time recommended for fall planting, the plants often fail to become well rooted, and are entirely lost; and under the most favorable circumstances but little will be gained by planting before spring. The ground after fall planting, becomes firmly packed before spring, and leaves it in a poor condition to favor the establishment of the plants, and the extension of the vines. Some fruit may be expected the season after fall planting, but the plants, generally, are so sparingly supplied with foliage that the fruit is generally filled with sand, if rains prevail during the period of ripening. It will require another season's growth of the plants to insure a crop of fruit, and this will hardly be better than if the planting had been deferred until spring. New and improved varieties are constantly appearing, and it may be desirable to procure them, and in order to do so it will be some times necessary to plant them in the fall, but under other circumstances it is not desirable to do so.

It is well to prepare the ground in the fall for spring planting, by deep spading, and if the soil is not rich, by manuring. A well rotted compost, free from the seeds of grass and weeds—such as may be made of leaf mould, muck, &c., is best. In private gardens or small plantations, it is best to grow the vines in hills by keeping the runners cut off. This method will give the largest fruit and the greatest yield, but to insure this the plants must be well cultivated and kept free from weeds, and the spaces between the plants in the growing and fruiting season should be well mulched with straw or some similar material. It is not necessary to procure a full supply of plants to fill the ground, at the time of planting, but the plants may be set three feet each way, and the runners directed, and the bed filled so as to have the plants stand twelve by eighteen inches apart. Or if not to be kept in hills the runners may be allowed to spread more fully, yet it is always best to direct them while rooting, in order to insure as equal a distribution of plants as possible over the ground.

No variety of strawberry succeeds equally well on all soils, and in all situations. A variety that produces abundant crops in one situation, will sometimes yield but poorly in others. But in almost every neighborhood varieties may be found that succeed well. The Wilson's Albany, for instance, very generally does well in most situations. In this respect it is somewhat remarkable. This, too, is a very deservedly popular sort, because it bears large crops of very handsome fruit, though not as sweet and well flavored as some others. Triomphe de Gand, though a foreign variety, is a favorite; also Austin's Seedling, Bartlett, Russell's Seedling, and others.

When the planting is deferred until spring, it should be done as soon as the plants begin to start into leaf, and the ground can be put in order. Then but few of the newly started roots are lost by the removal, and they secure the benefit of the early rains, and get well established, and send out strong and vigorous runners for the extension of new plants, and the whole will become well established during the season, and afford a full and remunerating crop the following season. The ground should, the first season, be kept light and mellow, and on no account be allowed to become choked with weeds. H.

☞ It is stated that Mr. CAMPBELL of Vermont, sold his twelve prize sheep, exhibited at Hamburgh, for the sum of $5,000.

Sale of South-Downs at Thornedale.

The Thorndale Sale of SOUTH-DOWN SHEEP took place Sept. 2d, as advertised, in the presence of a very large number of spectators and bidders, variously estimated at from three to five hundred. This may be said, at least, that the ring enclosed by a fence for the purpose, 50 feet in diameter, was closely packed all around, three or four deep, while many were constantly strolling about elsewhere. The list of purchasers will show a considerable attendance from a distance, including representatives from Ohio, Kentucky, New-Hampshire, Connecticut, Massachusetts and New-Jersey. Col. B. P. JOHNSON bid for Hon. E. CORNELL, whose recent illness rendered him unable to be present; SANFORD HOWARD of Boston, filled the orders of several purchasers in that State; WILLIAM BREWSTER, manager to R. A. ALEXANDER, Esq., bought for Mr. A. and another Kentucky gentleman, but, with these exceptions, the bidders were all present we believe in person. GEO. H. BROWN, Esq., who was the largest purchaser, is laying the foundation for an excellent flock in Mr. THORNE'S immediate neighborhood, and will have samples, we trust, at the State Fair next week, for exhibition. Among others present, were Hon. WM. KELLY, and WM. CHAMBERLAIN, Esq., of Dutchess, GEO. VAIL, Esq., of Rensselaer, Col. MORRIS and Messrs. FAILE and BAILEY of Westchester, Mr. SHELDON of Geneva, JONA. THORNE and JOHN HAVEN of New-York, J. C. TAYLOR of New-Jersey, Mr. SAXTON of the Stock Journal, Mr. COMSTOCK of the Argus, Mr. CUMING of the Observer, and a goodly list of prominent farmers in the immediate neighborhood, might be named, rendering the occasion equally pleasant as a gathering of agriculturists and breeders, and successful in a business point of view.

The arrangements of the Sale, for which Mr. THORNE assigns the credit to THOMAS GALBRAITH, herdsman in charge, we have never seen surpassed, if equalled, for the promptness with which each lot on the Catalogue was in turn brought in for sale, as well as for perfection in other respects. Unfortunately detained by irregularity of trains, until about one-fourth the number were disposed of, we cannot tell at exactly what time the operations at the ring, which had been preceded by a substantial lunch for the company, in one of the out-buildings,—were commenced; but we reached the ground at about twenty minutes before three o'clock, and by four the whole list, numbering in all one hundred, had been disposed of, the thanks of the auctioneer returned, and the hundred or two of teams in waiting were preparing for departure. Thus the time consumed in the bidding off of each sheep may have been about *one minute and a quarter*—a degree of expedition which could not have been attained, as those who are in the habit of being present on such occasions, will admit from the *slow* experiences of the past, without all the machinery in the smoothest working order, a wide-awake auctioneer on the stand, and a wide-awake company of bidders around him.

Mr. PAGE, as auctioneer, is making himself a reputation which will render his services as indispensable to breeders on sale days, as they already are in the exercise of the pencil for sketches and portraits—both requiring a knowledge of the improved breeds, and the former an acquaintance in agricultural circles, in which most artists and auctioneers are deficient.

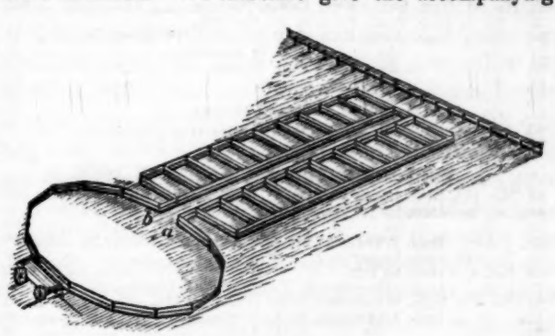
The Short-Horn Bull "Royal Oxford" by 2d Grand Duke—dam Lady of Oxford, by Duke of Gloster, was sold at private sale to R. A. ALEXANDER, Esq., of Kentucky—price paid $2,000.

In regard to the prices at which the sheep were sold we present below a complete list, and may remark that although not extravagantly high, they compare very favorably with any sale of the kind we have any knowledge of in this country. The yearling ewes went low, partly because the lateness of the down train detained some who would have been buyers, and partly because the auctioneer was instructed not to dwell, and the buyers actually present had not learned that they must *speak quick* to get their bids in at all. At Mr. TAYLOR'S sale at Holmdel just a year ago, the whole number sold and rented was 50, averaging about $38; total at Mr. THORNE'S, 100, averaging about $46.

Thus the result speaks well for the interests of the breed, and shows that at no previous time have our farmers been more generally awake to the improvement of their sheep. When "Archbishop" came into the ring, it was pleasant to note the runn'ng fire of bids, which kept Mr. Page constantly on the alert—starting at $100 and mounting quickly by successive steps to $125—150—160—slight pause—175—200—250—260—265—275—280—300—Mr. Page tries to catch his breath, but 325—350—355—360—365 come along too quick, and there he hardly ventures a "once—*twice*," when 375—380—385—390—400—425—450—500 interrupt him, in less time than it takes to write the figures—and then "*three times*—GONE" seals the fate of the Canterbury primate to the meadows of "Millbrook." The rams that followed next were good bargains, all of them; No. 4 was low at $125, and when No. 9 made his bow to the company, the starting bid was $50, followed at once by $75, as if to bluff off competition, and then by $85 and $100, and still half a dozen undismayed competitors remained, who quickly ran him up to $131, the final notch.

As to the quality of the sheep, little need be said. The yearling ewes were rather late lambs, and hence were not as showy in size as would otherwise have been the case, but the two and three-shear ewes were generally admirable, and the rams certainly went below what their merits ought to have brought for them—the only advantage possessed by "Archbishop" over two or three of Mr. THORNE'S own breeding, being apparently his *prestige* as a prize-winner in England.

As we have spoken so highly of the arrangements of the sale, it may be well, both to prove the justice of the compliment, and place the details before our readers for future imitation. We therefore give the accompanying



sketch, from which it will be observed that twenty pens were provided on either side of an alley way leading to the ring, each pen containing four ewes, convenient for the examination of purchasers previous to the sale, and ranged along in catalogue order. The side of the pens toward the alley was a movable hurdle, and the ewes were passed into the ring with the utmost rapidity, and always in order. The entrance to the ring at *a b*, was so arranged

as to furnish also an exit for the sheep, as fast as sold, into the outer field. The rams were tied to stakes along a bit of temporary fence just beyond, each with his pedigree in full upon a card above. The auctioneer occupied his usual rostrum—a wagon at the opposite side of the ring.

Here follow the details of the sale, including pedigree, purchaser and price of each sheep :—

YEARLING EWES.

No.	Sire.	Dam's Sire.	Purchaser.	Price.
1.	Archbishop,	No. 6	P. U. Jones, Amherst, N.H.,	$25.00
2.	do.	No. 112	J. C. Tatum, Woodbury, N. J.	22.00
3.	do.	No. 6	Hon. E. Cornell, Ithaca,	20.00
4.	do.	Young Salisbury,	Geo. H. Brown, Millbrook, Wash. Hollow, Duchess County,	26.00
5.	do.	No. 6	Hon. E. Cornell, Ithaca,	21.00
6.	do.	No. 6	Hill & Jones, Delaware, Ohio,	37.00
7.	do.	No. 6	Geo. H. Brown,	41.00
8.	do.	No. 19	E. Cornell,	28.00
9.	do.	No. 6	Hill & Jones,	40.00
10.	do.	No. 112	R. A. Alexander, Woodford Co., Ky.,	41.00
11.	do.	No. 6	E. Cornell,	37.00
12.	do.	No. 6	Geo. H. Brown,	41.00
13.	do.	Young Salisbury,	J. S Homans, New-York,	31.00
14.	do.	No. 19	E. Cornell,	33.00
15.	do.	Young Salisbury,	J. C. Tatum,	30.00
16.	do.	Reserve,	Wm. Hurst, Albany,	50.00
17.	do.	Young Norwich,	R. A. Alexander,	51.00
18.	do.	Hen. Webb's Pet,	do.	51.00
19.	Imp. No. 14,	Young Salisbury,	E. Cornell,	38.00
20.	do.	No. 6	do.	43.00
21.	do.	No. 6	do.	37.00

$743.00

TWO YEAR OLD EWES.

	Sire.	Dam.		
22.	No. 5	Dam by No. 6	Hon. E. Cornell,	$46.00
23.	do	Dam imported,	R. A. Alexander,	60.00
24.	do	do	Geo. H. Brown,	51.00
25.	do	do	E. Cornell,	50.00
26.	do	Dam by No. 6	do	46.00
27.	do	do	J. W. Alsop, Middletown, Ct.,	40.00
28.	do	do	E. Cornell,	45.00
29.	do	Dam by No. 19	Geo. H. Brown,	51.00
30.	do	Dam an imp. Webb Ewe,	G. G. Hammond, Boston,	56.00
31.	do	do do	do	58.00
32.	do	do do	R. A. Alexander,	80.00
33.	do	do do	G. G. Hammond,	63.00
34.	do	Dam by No. 6	E. Cornell,	45.00
35.	No. 31	Dam by 112,	do	58.00
36.	do	do	do	37.00
37.	do	do	G. G. Hammond,	51.00
38.	do	Dam imp. Webb Ewe,	S. W. Robins, Wethersfield, Ct.,	55.00
39.	do	Dam by No. 6,	Geo. H. Brown,	65.00
40.	do	Dam by 112,	do.	60.00

$1027.00

THREE YEAR OLD EWES.

	Sire.	Dam.		
41.	Young Salisbury,	Imp. Prize Ewe,	R. A. Alexander,	$52.50
42.	do	Imp. Webb Ewe.	Geo. H. Brown,	43.00
43.	do	By 112,	Sanford Howard,	45.00
44.	do	Imp. Webb Ewe,	R. A. Alexander,	45.00
45.	do	By 112,	do.	40.00
46.	do	By 112,	Wm. Hurst,	40 00
47.	do	Imp. Lugar Ewe,	J. C. Tatum,	32.00
48.	do	By No. 19,	Geo. H. Brown,	38.00
49.	do	Imp. Lugar Ewe,	J. C. Tatum,	30.00
50.	do	Imp. Webb Ewe,	Geo. H. Brown,	95.00
51.	do	By 112,	Edwin Thorne. Pokeepsie,	25.00
52.	do	Imp. Webb Ewe,	J S. Homans,	37.00
53.	do	do	Geo. H. Brown,	37.00

$559.50

FOUR YEAR OLD EWES.

54.	No. 6.	Imp. Lugar Ewe, Edwin Thorne,	$35.00
55.	do 6,	Imp. Prize Ewe, S. W. Robins,	31.00
56.	do	Imp. Webb Ewe. F. P. Kincaid, Woodford Co., Ky.,	37.00
57.	do	do J. S. Homans,	33.00
58.	do	do Wm. Hurst,	31.00
59.	do	do do.	51.00
60.	do	do do.	45.00
61.	do	do Edwin Thorne,	40.00
62.	do	do Wm. Hurst,	48.00
63.	[Dead.]		

$351.00

FULL-MOUTHED EWES OF OTHER AGES.

64.	No. 112,	Imp. Lugar ewe, P. R. Close, Greenwich, Ct.,	$35.00
65.	No. 6,	Dam by 112, (Dead.)	
66.	do	do J. W. Alsop,	29.00
67.	do	Imp. Webb ewe, R. A. Alexander,	28.00
68.	No. 112,	Imp. Lugar ewe, J. W. Alsop,	26.00
69.	No. 6,	Dam by 112, do	23.00
70.	do	Imp. prize ewe, S. T. Angel, Salt Point,	26.00
71.	No. 112,	Imp. Webb ewe, Wm. Hurst,	42.00
72.	do	Imp. prize ewe, R. A. Alexander,	40.00
73.	do	do J. W. Alsop,	30.00
74.	do	Imp. Richmond ewe, E. Griffin, Clinton Corners,	29.00
75.	do	Imp. Webb ewe, J. S. Homans,	23.00
76.	A ewe	imported from Webb, do	20.00
77.	do	do Lugar, J. W. Alsop,	22.00
78.	do	do do J. H. Allen, Pleasant Valley,	20.00
79.	By 112	from imp. Webb ewe, do do	20.00
80.	do	imp. Lugar ewe, D. Haywood, Copake,	25.00
81.	do	imp. prize ewe, J. H. Allen,	20.00
82.	An imported	prize ewe, Wm. Hurst,	13.00
83.	do	do J. S. Homans,	14.00

$485.00

RAMS.

1.	Imported Prize Ram Archbishop, Geo. H. Brown,	$500.00
2.	3 yrs. by Young Salisbury, dam imp. prize ewe, John Bard, Barrytown,	30.00
3.	2 yrs. by No. 5. dam by No. 6, Governeur Armstrong, Newburgh,	25.00
4.	do by No. 88, dam by Reserve. Edwin Thorne,	125.00
5.	do do do Josiah Kirk, Sag Harbor,	40.00
6.	1 yr. by No. 14, dam by Young Salisbury, J. C. Tatum,	30.00
7.	do by Archbishop, dam by Reserve, Thomas George, Newburgh,	52 00
8.	do do dam by Young Norwich, P. W. Jones,	17.00
9.	do do dam by Reserve, G. G. Hammond,	31.00
10.	do do dam by Young Salisbury, John Robinson, Clinton Corners,	28.00
11.	do do dam by No. 6, A. W. Storm, Duchess Co.,	30.00
12.	do do dam by No. 6, Jas. O. Sheldon, Geneva,	55.00
13.	do do dam by Young Salisbury, E. M. Botsford, Newtown, Ct.,	26 00
14.	do do dam by 112, Albert Fearing, Boston,	57.00
15.	do do do Edwin Thorne,	70.00
16.	do do do P. W. Jones,	41.00
17.	do do dam by No. 6, Wm. Hurst,	50.00
18.	do do dam by Reserve, Sanford Howard,	35.00
19.	6 yrs. by No. 112, F. P. Kincaid, Woodford Co., Ky.,	50.00

$1,392.00

AGGREGATE RESULT.

21	Yearling Ewes,	average	$35.39,	total,	$743.00
19	Two-Year old Ewes,	do	54.05,	do	1,027.00
13	Three Year old Ewes,	do	43.00,	do	559.50
9	Four-Year old Ewes,	do	39.06,	do	351.00
19	Aged Ewes,	do	25.50,	do	485.00
81	Ewes averaged $39.00,		total,		$3,165.50
19	Rams, different ages,		average $73.26,	total,	1,392.00
100	Average $45.57,		total,		$4,557.50

MOVEABLE BOTTOM BOARD.

With the moveable frame, a loose bottom board is a nuisance. There will always be more or less cracks from warping and inequalities which will afford a harbor for the moth worm, and a place of deposite for the eggs of the moth. If you raise the hive to clean out these or for other purposes you are almost sure to crush more or less bees when you let it down. It makes a sensitive man feel ugly to hear the crushing of the inocent little workers between the bottom and the edges of the hive, and tends to irritate and provoke other bees and make it unpleasant handling them. If it is cruel "needlessly to set foot upon a worm," how much more so to needlessly kill the industrious little bee who labors early and late to furnish us with luxurious sweets.

Moth Traps.

Mr. Langstroth's moveable blocks, with spaces underneath for the moth worm, cannot well be beat for practical utility. They afford such a nice, cosy, private, accessible place for his wormship to wind himself up, that he is quite sure to avail himself of it. With a snug, tight jointed hive, with bottom-board permanently attached, you will find these pests laid away under these blocks, just where you can lay violent hands upon them every morning when you take the rounds of your apiary. These blocks, in connection with one other place mentioned under the head of bee-stands, furnish us all need ful assistance to keep this pest in subjection.

Bee Stands.

Those using Mr. Langstroth's hive will find the following a very cheap, convenient and good arrangement for a stand. Take 2 by 4 inch lumber, and saw two pieces the length of the width of the hive. Place one flat ways under the front of the hive, letting it project forward one inch farther than the bottom of the hive. Set the other up edgeways under the rear of the hive. This inclines the hive forward two inches, and facilitates the exit of the bees when cleaning the hive, and helps them protect themselves against marauding bees. Lay a piece of thin board or a shingle on to the projection under the front of the hive, resting the other edge on the ground. This leaves a space on the top of the 2 by 4 inch piece, and under the board or shingle as the latter rests across the corner of the former. If any worms fail to get under the blocks they are pretty sure to be found here. This board or shingle also affords good facilities for heavily laden or weak bees to crawl into the hive should they fail to reach the hive and fall upon the ground. If a queen ventures out that cannot fly, she can crawl up again into the hive, and thus is saved.

Rolling Prairie, Wis. L. L. FAIRCHILD.

FARMERS' READY RECKONER.

EDS. CO. GENT.—I enclose you a table of dates of gestation of the different domestic animals most common about farm yards. If you think it worthy of sp ce in your really valuable journal, I would be glad if you would find room for it, as I have no doubt that it will prove of use to many of your agricultural subscribers. QUEBEC.

When served or set.	TIME OF COMING-IN OR HATCHING.						
	Mares.	Cows.	Ewes.	Sows.	Bitches	Turkies Ducks, Geese.	Fowls.
1 Jan., ...	1 Dec.,	13 Oct.,	2 June,	23 April	5 Mch.,	30 Jan.,	22 Jan.
10 do. ...	10 do.	23 do.	11 do.	3 May,	15 do.	9 Feb.,	31 do.
20 do. ...	20 do.	1 Nov.,	21 do.	12 do.	25 do.	19 do.	10 Feb.
1 Feb., ...	1 Jan.,	13 do.	2 July,	24 do.	5 April,	2 Mch.,	22 do.
10 do. ...	10 do.	23 do.	12 do.	2 June,	15 do.	12 do.	3 Mch.
20 do. ...	20 do.	2 Dec.,	23 do.	12 do.	25 do.	22 do.	13 do.
1 March,.	28 do.	11 do.	31 do.	21 do.	3 May,	30 do.	22 do.
10 do. .	7 Feb.,	21 do.	9 Aug.,	2 July,	13 do.	9 April,	31 do
20 do. .	17 do.	31 do.	19 do.	12 do.	23 do.	19 do.	10 April
1 April, ..	1 Mch,	11 Jan.,	29 do.	22 do.	3 June,	30 do.	22 do.
10 do. ..	10 do.	21 do.	9 Sept.,	1 Aug.,	13 do.	10 May,	1 May.
20 do. ..	20 do.	31 do.	19 do.	10 do.	23 do.	20 do.	11 do.
1 May, ...	31 do.	10 Feb.,	29 do.	20 do.	2 July,	30 do.	22 do.
10 do. ...	9 April,	20 do.	9 Oct.,	30 do.	12 do.	9 June,	31 do.
20 do. ...	19 do.	1 Mch.	19 do.	9 Sept.,	22 do.	19 do.	10 June
1 June,...	1 May,	13 do.	31 do.	19 do.	3 Aug.,	30 do.	22 do.
10 do. ...	10 do.	23 do.	9 Nov.,	29 do.	13 do.	10 July,	1 July.
20 do. ...	20 do.	1 April.	19 do.	10 Oct.,	23 do.	20 do.	11 do.
1 July, ...	31 do.	12 do.	30 do.	20 do.	3 Sept.,	30 do.	22 do.
10 do. ...	9 June,	22 do.	9 Dec.,	30 do.	12 do.	9 Aug.,	31 do.
20 do. ...	19 do.	1 May,	19 do.	9 Nov.,	22 do.	19 do.	10 Aug.
1 Aug.,...	1 July,	13 do.	31 do.	20 do.	3 Oct.,	30 do.	22 do.
10 do. ...	10 do.	23 do.	9 Jan.,	30 do.	12 do.	9 Sept.,	31 do.
20 do. ...	20 do.	1 June,	19 do.	10 Dec.,	22 do.	19 do.	10 Sept.
1 Sept., ..	1 Aug.,	13 do.	31 do.	21 do.	3 Nov.,	30 do.	22 do.
10 do. ..	10 do.	23 do.	9 Feb.,	31 do.	13 do.	10 Oct.,	1 Oct.
20 do. ..	20 do.	2 July,	19 do.	10 Jan.,	22 do.	20 do.	11 do.
1 Oct., ...	1 Sept.,	13 do.	2 Mch.,	20 do.	3 Dec.,	30 do.	22 do.
10 do. ...	10 do.	23 do.	12 do.	30 do.	12 do.	9 Nov.,	31 do.
20 do. ...	20 do.	1 Aug.,	21 do.	9 Feb.,	22 do.	19 do.	10 Nov.
1 Nov.,...	1 Oct.,	13 do.	2 April,	20 do.	3 Jan.,	30 do.	22 do.
10 do. ...	10 do.	23 do.	11 do.	3 Mch.,	12 do.	10 Dec.,	1 Dec.
20 do. ...	20 do.	1 Sept.,	21 do.	12 do.	22 do.	20 do.	11 do.
1 Dec.,...	2 Nov.,	13 do.	2 May,	23 do.	3 Feb.,	30 do.	22 do.
10 do. ...	11 do.	23 do.	11 do.	1 April,	13 do.	9 Jan.,	31 do.
20 do. ...	21 do.	2 Oct.,	21 do.	11 do.	22 do.	19 do.	11 Jan.
31 do. ...	30 do.	12 do.	1 June,	22 do.	4 Mch.,	29 do.	21 do.

Gathering and Saving Clover Seed.

MESSRS. EDITORS—A correspondent at Spring Station, Kentucky, asks for information in regard to the necessary machinery for gathering and saving clover seed. Your reply thereto fully meets the question for New-York and other Northern States. I have grown and saved much clover seed in Kentucky, and have introduced several clover-hulling machines into the State, and have made no little effort to induce the farmers to save their own clover seed, and all to but little purpose. Clover grows very luxuriantly on the rich lands of Kentucky, like that about Spring Station, yielding a much larger proportion of stems to the seed-heads than is grown in the more Northern States, so that in cutting and threshing in the ordinary way, as suggested in your reply, there is a large amount of straw to be handled and run through the machine to obtain a small quantity of seed; yet clover seed can be saved for home seeding at much less cost than to purchase it.

I early adopted a very economical method of saving clover seed, avoiding the trouble of both mowing and threshing, gathering only the heads from the field. My method was as follows: I made a common sled, (called in Kentucky a slide,) the sides of plank two inches thick, and say six feet long, and set about three feet three inches apart. A box is made of a width that will play free between the sides of the sled, and three feet and three inches long. The forward end of the box is left out. A piece of hard-wood plank across the forward end of the box forms a part of the bottom; the remainder of the bottom may be of thin light wood. Fingers made of locust or some other hard wood, are firmly screwed to the front piece, forming the bottom. These fingers may be fourteen inches long, one inch wide at the top, and beveled so as to be but threequarters or five-eighths of an inch wide at the under side, and threequarters of an inch thick. The points, of course, are to be sharpened. The teeth are secured to the forward bottom plank, so as to leave a space between them of *three-sixteenths* of an inch, the length projecting forward beyond the bottom ten and a half inches, the whole forming a box with a comb at the forward end. The teeth, where they are secured to the forward piece, must fit close together, by sawing the spaces forming the teeth out of solid boards, or if the teeth are made separate, the spaces must be closely filled in order to render the teeth more firm. The teeth will work better if capped neatly with iron hoop; the spaces the same as above given, though if the wood is a little more beveled when covered with iron, they will be more easily cleared.

The box is hung between the sides of the sled by two trunnions of hard wood, two inches in diameter, secured firmly through the sides of the box near the bottom, and working free through two corresponding holes near the top of the sled, or so that the bottom of the box when on a level, will be about eight or nine inches from the ground. To the sides of the box, extending backwards, two handles are secured, at such an angle as will be convenient to hold in following the sled, and to elevate or depress the teeth, to catch below the heads of the clover. The sides of the sled can be held together only by pieces from the rear end of the box. This may be done by two cross pieces secured in mortices to the sides, or in two inch auger holes, and then, to give additional strength, pieces of boards (called plank in Kentucky) may be nailed across the top. One horse will draw this with ease over the clover field, and gather seven-eighths of all the heads, leaving the straw to fertilize the land. The heads thus gathered should be placed for a time upon a scaffold under a shed, or upon a barn floor to dry, when it may be packed in hogsheads until the time of sowing. Even if the seed is to be hulled and cleaned, this is the best way of gathering it, where there is so large a disproportion of straw to the seed, as is usually grown upon the lands referred to.

I have also used a more complete machine made in a somewhat similar manner, but running on wheels, with cog-gearing, for the purpose of revolving a reel with spiral arms, which scrape back the seed from between the teeth as it is gathered. (With the other machine a sharp hoe is carried for the purpose.) But the other machine any ingenious farmer can build himself, and it answers nearly as good a purpose, and several acres can be gathered with it in a day, and enough can be gathered in two days to pay the whole cost of the machine at the ordinary price of clover seed. Seed kept and sown in the chaff I have sometimes thought came up better than that which was cleaned. In many years farming in Kentucky, I saved in this way all of my own seed, and much that was sold in the neighborhood, after the first seeding. H. P. B.

Sorghum Cake.

I send you a receipt for making cake of sorghum. To 1 pint of molasses, 1 cup butter, 2 eggs, 1 teaspoonful soda, add 1 tablespoonful of wine, as it adds to its flavor, and moistens flour enough to render it the consistency of unbaked pound cake. Bake in a hot oven. FANNIE.

NEW-YORK STATE FAIR.

The Twenty-Third Annual Fair of the New-York State Agricultural Society, held at Utica last week, was a decided success. The weather, till the last day, was all that could be desired, and the attendance Wednesday and Thursday, taxed the Utica street cars and omnibuses to their utmost capacity, and hundreds could find no means of conveyance to the grounds. The trains on the New-York Central Railroad were, also, unable to carry all the passengers that presented themselves at the various stations along the route, and many were undoubtedly deterred from attending the Fair, by the difficulty of getting there. Many articles intended for exhibition were also delayed on the road. We mention these things not in any fault-finding spirit, but to show that notwithstanding the excited state of the country, our people have not lost their interest in agriculture and the mechanic arts.

The Stock Department

Was not as full as on former occasions. Some of our most celebrated breeders did not exhibit. One of them informed us that the demand for his stock had been so large that he had little left to bring to the Fair. Still the exhibition of stock was good, though not large.

Among the cattle the SHORT-HORNS, as usual, were most numerous. There were some splendid animals of this valuable breed. In the class of three-year old bulls and upwards, "Hotspur," bred and owned by T. L. Harison of Morley, St. Lawrence county, was well worthy of the first prize and diploma awarded him by the committee. We have felt much interest in watching his progress since he was first exhibited at the State Fair at Watertown, in 1861, where he took the first prize as the best yearling bull, and the sweepstake as the best Short-Horn bull of any age. He has fully sustained his early promise, and the farmers of the northern counties are to be congratulated in having such excellent stock among them. "Iron Duke," owned by Messrs. Brodie, Campbell & Co. of New-York Mills, Oneida county, which took the second prize in this class, is also a large well-grown bull. Among the two-year old bulls, that shown by T. G. Aycrigg of Passaic, N. J., though somewhat low in condition, has many good points, and is well worthy the honor of the first prize which it received. Of yearling bulls there was but one shown—a very fine one, "Lord Mayor of Oxford," owned by Elihu Griffin of Clinton Corners, Duchess county. The red bull calf, owned by T. L. Harison of St. Lawrence county, and which took the first prize, is a very fine animal of great promise; as is also the red calf of George Butts of Manlius, which took the second prize. The competition was very close.

Of Short-Horn cows, three years old and upwards, there was a very fine ring. "Blooming Heather," bred by Samuel Thorne, and owned by Geo. H. Brown of Washington Hollow, Duchess county, took the first prize, and Mr. Cornell's "Lilly Languish" the second. The red cow, "Cyprus," owned by E. Griffin, and which was awarded the third prize, is also worthy of mention. The heifer calves shown by E. Cornell of Ithaca, and Geo. Butts of Manlius, were two as good calves as were ever exhibited at our State Fair.

Of HEREFORDS the show was not large, but the animals were of superior quallty. Mr. E. Corning, Jr., of Albany, carried off all the prizes.

Among the DEVONS were some excellent animals, but none that need be specially alluded to.

The AYRSHIRES were well represented. This excellent milking breed is steadily gaining a foothold in the dairy districts of the State. The cows shown by Messrs. Brodie, Campbell & Co., are models of beauty.

Of ALDERNEYS the show was in no way remarkable, either in numbers or quality.

Sheep.

We have heard much of the prevalence of the "sheep fever," and had expected a large show, but in this we were disappointed. All the various Merino breeds were this year included in one class, and some of the breeders of Spanish sheep complained that it was not fair to make them compete with the Silesian, which is a larger breed of sheep. Be this as it may, the Spanish sheep were but meagerly represented. Of Silesian, Mr. W. CHAMBERLAIN of Red Hook, N. Y., showed 42 head, and carried off nearly all the prizes. We have so frequently alluded to these sheep that it is unnecessary to say more than that they fully maintain the high character so generally accorded to them. We noticed one pen of Spanish Merino ewes shown by Chester Baker of Lafayette, Onondaga Co., N. Y., which were very handsome.

Of GRADE MERINOES there was a good display, principally from the flock of Mr. Chamberlain. They were from the ordinary Merino sheep of the country crossed with a Silesian buck, and certainly possessed many excellent qualities.

Of SOUTH-DOWN SHEEP the show was not large, but there were some excellent specimens exhibited by Jacob Lorillard of Fordham, and E. Cornell of Ithaca.

The Shropshire-Down ram exhibited by Mr. Lorillard was a remarkably fine sheep, and we regret that Mr. L. was not a larger exhibitor.

Of COTSWOLDS and LEICESTERS there were some noble looking specimens. We class them together because we cannot but believe that the modern Leicesters owe much of their great size to the infusion of Cotswold blood at a more or less remote period. We deem this no objection to them. The breed has undoubtedly become established, but it would be well to give them some other name. The genuine pure bred Leicester is a much smaller sheep than those now shown in Canada and in this State, and we believe in Scotland, under that name.

Jurian Winne of Albany showed some splendid specimens of this breed, which attracted much attention from their great size. Brodie, Campbell & Co., as usual, were large exhibitors in this class, and carried off many of the prizes. James F. Converse of Woodville, Jefferson Co., showed some very fair Cotswolds, and we were much pleased with some splendid Cotswold and Leicesters shown by Luther Lawyer of Perch River, Jefferson Co.

Pigs.

The show of swine was confined almost exclusively to the large breeds. Where are the Suffolk and Essex breeders? It cannot be that the large breeds have driven them out of the State!

The Yorkshires and Cheshires were well represented. In fact we have rarely seen a finer show of these large breeds of pigs. John F. Converse of Ellisburg, Jefferson Co., exhibited a Yorkshire boar that is the best we have seen for some time—long, square bodied, entirely white, with a good head and remarkably fine upright ears. Several of the Yorkshires shown were narrow on the shoulders. The Cheshire hogs first attracted our attention at the State Fair at Watertown in 1861. This breed seems to be confined almost entirely to Jefferson Co. One of the

pigs attracted much attention at the State Fair at Watertown in 1861, on account of his great size. He was then sixteen months old, and was said to weigh 700 pounds. He was owned by T. T. Cavanagh. Mr. C. exhibits a hog this year (we presume the same one) that weighs 1,100 pounds. He is 6 feet 10 inches around the shoulders, and 6 feet 8 inches long! We do not mention this as any evidence of superiority in the breed, for it certainly is not; but these Cheshire hogs *have* qualities that would seem to recommend them. They are large, square, well-formed, handsome white pigs, but have the appearance of fattening easily. Nearly all the swine were of this breed. S. P. Huffstater and T. T. Cavanagh of Watertown exhibited several pens. Mr. A. C. Clark of Henderson, Jefferson Co., also showed one or two pens of this breed. One pen of five, only 5 months old, were of great size for their age, and very handsome. He also showed a breeding sow, 4 years old, that has raised eighty pigs. On remarking that she was too fat to breed, Mr. C. replied, "Perhaps so, but it is difficult to keep her poor; everything she eats turns to fat." The New-York State Utica Asylum showed some very fine Yorkshire pigs, and G. C. Palmer of New-Hartford, exhibited a Leicester and Yorkshire sow, with 10 pigs, that was very good; but the Cheshires were unmistakably the favorite breed at the Fair. W. B. Dinsmore of Staatsburgh, Duchess Co., showed a fine white Suffolk boar, and there were one or two other exhibitors, but the show of small breeds was small indeed.

Cashmere Goats.

Mr. Dinsmore also exhibited six Cashmere goats, which attracted very general attention. Mr. D. has some 40 or 50 head of these animals. They shear between three and four pounds of wool per head. It is said to sell for $5 or $6 per pound, but at present there is no market for it in this country. Doubtless there soon will be if it is shown that we can raise it—and there would seem to be no reason why we cannot.

Poultry.

There was the finest show of the feathered tribes that we have had since the decline of the "chicken fever." E. N. Bissell of Shoreham, Vt., showed 15 coops, and Heffron & Barnes of Utica, 30 coops. Among the latter was a pair of two-year old Toulon geese that weighed 50 pounds. A pair of White China or White Swan geese, attracted much attention. They were very graceful and beautiful. Of chickens nearly all the breeds were well represented—from a large Shanghai to a diminutive Bantam. Dorkings, Spanish, Polands, Bolton Grays, &c., were out in full force. So of the ducks—Muscovy, Black Cayuga, Rouen, Aylesbury and other breeds, were well represented. The Muscovy ducks were almost as large as an ordinary goose. Guinea and Pea Fowls were also there, and the beautiful little Pigeons—forming one of the most interesting features of the exhibition.

Agricultural Implements and Machines.

The striking feature of the exhibition was the excellent show of agricultural implements and machines. There have been greater displays, but for intrinsic merits—for new improvements, we think the fair at Utica will compare favorably with any that have preceded it. We have space to notice only a few of the many excellent agricultural implements and machines on the grounds, and that very briefly.

Cheese Making Apparatus.

A farmer contemplating engaging in cheese making, would have had no difficulty in supplying himself on the grounds with every necessary utensil. Ralph & Co. of Utica, showed a very fine collection, including steel curd knives, milk cans, metallic cheese hoops, curd scoops, milk strainers, cheese presses, &c. Their "Oneida Cheese Vat" is well known to the readers of the COUNTRY GENT. They exhibited some patterns of this vat, both for factories and for private dairies, and it is difficult to see how it could be improved.

H. & E. F. Cooper of Watertown, also exhibited "Roe's Western Reserve Cheese Vat," which we have so frequently recommended. If our dairymen do not succeed in making the best cheese in the world, it will not be for want of mechanical appliances.

Bullard's Hay Spreader and Turner.

This new implement for spreading out and turning hay was at work on the grounds, and attracted much attention. It did the work rapidly and well, and certainly far cheaper than it could be done by hand. It is manufactured by Silas C. Herring of Brimfield, Mass.

Horse-Power Threshing Machines.

Several of them were in operation, and, as usual, were surrounded by a crowd of spectators. Wheeler, Melick & Co. of Albany, had several of their well known machines on the grounds. During the past year they have made an improvement in their machine, which will materially add to its value. The transverse rods, which were under the horses' feet, are dispensed with, and a self-sustaining link with *cast steel journals*, substituted in their place. This brings the weight of the horses on *both sides* of the small wheels, and will make them run easier and steadier, and less liable to get out of repair.

Westinghouse & Co. of Schenectady, have also made improvements in their excellent Horse-Power and Threshing Machine. An intelligent and disinterested farmer, who had more time to examine them than we had, remarked that their machine cleared the grain far better than any other machine on the grounds.

Wheeler, Melick & Co., Westinghouse & Co., and Dow & Fowler of Fowlerville, N. Y., also exhibited their lever horse-power threshing machines.

Straw, Hay, and Corn-Cutting Machines,

Were well represented. H. K. Parsons of Harrisburg, Pa., exhibited several sizes of "The Eureka" crusher and cutter, which has few if any superiors. Dow & Fowler of Fowlerville, N. Y., also showed one in operation, driven by horse-power, that crushed the cornstalks and cut them up exceedingly fine, and left them in excellent condition for feed. A *combined* straw-cutter and corn-sheller was shown by J. S. Taylor of Rome.

Grain Drills

The numerous grain drills on exhibition indicate that farmers are paying more attention to drilling in their wheat and other grains. Most of the drills shown were excellent, and are so arranged that they will sow any kind of grain, wheat, barley, oats, rye, peas, corn and beans. Several of them have attachments for sowing plaster and other manures at the same time, as well as timothy and clover seed. The drill manufactured by N. Foster of Palmyra, N. Y., is of this character, as is also the "Buckeye Grain Drill and Grass Seed Sower," and it has has this advantage—the grass seed is sown behind the drill, so that there is no danger of the drill spouts covering it too deeply.

H. L. & C. P. Brown's of Shortsville, Ontario county, N. Y., is also a very superior drill, capable of sowing all kinds of seeds, manures, &c. Some recent improvements have been made in special reference to sowing beans, corn, &c.

S. P. Hubbell of Unadilla, N. Y., exhibited his *broadcast* grain, seed and plaster sower. It will sow from one quart to thirty bushels per acre. At the ordinary gait of a horse, it will sow thirty acres per day.

A GOOD IDEA.—At the annual meeting of the Isle of Wight Agricultural Society, which was lately held at Newport, a novel feature was introduced into the exhibition by premiums being awarded for horse shoeing, in which department nine smiths from different parts of the island competed. The work of all was done satisfactorily, and it was somewhat singular that the prizes with one exception were awarded to competitors from villages who on this occasion distanced the townspeople.

THE CURRANT AND GOOSEBERRY.

The currant was among the earliest fruits cultivated in this country, or we should rather say grown, for it received but little care or culture. The bushes were generally set along the garden fence, and suffered to grow up in large bunches, seldom thinned or pruned, and of course the fruit was small and inferior in quality, yet it has ever been esteemed as a valuable fruit in the family. With the care that fruit now generally receives, the currant is greatly improved in size and quality, and should have a place in every garden. No plant is propagated with more ease and certainty. It strikes readily from cuttings, and from these they may be brought into vigorous bearing in two or three years. There are different methods practiced in growing this fruit. Some cultivators set the plants and permit the shoots to multiply at the bottom to the number of twenty or more, and then from year to year cut out the old and decaying branches, and thin out the young wood, until the number is sufficiently reduced to give light and air to the growing fruit. But the better method is to grow them with a single stem, in the form of a miniature tree. With proper care, in this form, the largest fruit may be grown. It is easy to establish this habit, provided the cuttings are prepared for it before planting; and this is done by simply cutting out the eyes or buds from the base up, leaving but two or three at the top. Cuttings strike root more readily, and make a better growth in the spring, if planted in the fall. This should be done in September, or as early as the leaves fall. Cuttings should be of young wood of the same season's growth, and should be cut about twelve inches long. It is best to set them in nursery rows, at a distance of ten or twelve inches apart. They may be set seven or eight inches in the ground. The following spring the plants may be reset where they are to stand. With a little care and judicious pruning, bushes grown in this form will remain productive a long time, and are more easily kept free from weeds and grass, than when permitted to grow up in a mass of stems together. Of the various ways in which the currant may be used, little need be said; every good housewife understands this. For medicinal purposes the currant makes an excellent wine, and should always be preferred to the adulterated material sold under the name of foreign wine.

The currant, like most other fruits, has been greatly improved within a few years past, by the introduction of new varieties. Among the kinds most highly recommended, is the May's Victoria, Red Dutch, White Dutch, White Grape, and some others. The Cherry currant is among the largest and for a time attracted much attention, but of late it is less highly esteemed, as not possessing the good qualities of some of the smaller varieties, yet we should be reluctant to discard it altogether. The Black currant, too, is worth attention, and a few bushes of these should find a place in every garden of considerable size. The Black Naples is the best.

The Gooseberry.—The foreign varieties of this fruit have been found so subject to mildew in this country, that they are less extensively cultivated than formerly. In some localities they still do well. For instance in large cities, where a place for them can be found, they are not attacked with this disease. Mr. Longworth in Cincinnati, has grown them in the greatest perfection. It is probable that the atmosphere is in some way modified by the fire of the manufactories, or from some other local cause, that renders them exempt from mildew in cities. Several new native seedlings have recently been introduced, that promise to be exempt from disease. Among these are Downing's and the Mountain seedlings. These new seedlings are much more liable to send up suckers than the currant, and it is a matter of the first importance that the eyes be removed, as recommended for the currant. The cuttings should be set at the same time and in the same manner. We throw out these hints for the benefit of those who have heretofore neglected the cultivation of these fruits. H.

A HOUSE TO DRY FRUIT IN.

In many sections of the country there is an abundant fruit crop the present season; much of this fruit cannot be sent to market, to profit, in its green state, and may be dried to good advantage, and find a ready sale at high prices. While the war lasts there will be an unusual demand for dried fruit. The usual methods employed for drying fruit are slow and tedious. In Kentucky and Tennessee, where apples and peaches are extensively dried, they have a cheap method of building kilns for the purpose. These are built of the common limestone of the country. A furnace or fire-place is made, about two feet wide and six feet long, terminating with a low chimney at the opposite end. The walls are laid up about about eighteen or twenty inches high, and then covered over with thin slabs of limestone, and the whole made smooth with a coat of mortar; upon this the fruit is dried. A rough shed is built over the kiln, so that the work can progress in rainy weather. This method of drying fruit, however, is objectionable; exposed to the air, it dries slow, and even with the greatest precaution the fruit is often burned on one side over the hotest portion of the furnace.

At the Shaker establishments in Kentucky, they have a method of drying fruit that is both expeditious and very complete. It consists of a building of logs, brick or stone, of any convenient size—say ten feet wide by twelve or fourteen feet long; the walls seven or eight feet high, with an ordinary roof. Upon the top of this should be a ventilator, sufficiently large to admit of the escape of the vapor arising from the fruit. An opening may be left along under the eves for ventilation, but it is better to have it on the top of the building. At one end of the house a furnace is built, opening on the outside. This is about two feet square. The sides are of brick, and only sufficiently thick to sustain the top. The flue extends the length of the building, and returns to the chimney near the furnace door. The top of the furnace and flue may be covered with any old plates of cast-iron, or sheets of boiler iron; thicker iron, or a covering of brick or stone, might not admit of the escape of sufficient heat to dry the fruit with facility. The fruit is dried on trays or hurdles, arranged in three tiers, one above another, with a space of twelve or fifteen inches between them. The hurdles are two feet or more wide, and six feet or more long, and three inches deep. These are simple trays made of pine boards, with bottoms made of small strips, or laths of hard wood. Through the length of the building, and extending six or eight feet outside, scantling are put up to support the three tiers of hurdles. A broad door is made at the end of the building to correspond with each tier of hurdles. Upon each pair of scantling a frame is made to correspond with the width, which runs out and in the building upon rollers, in the form of a railroad. The frames are drawn out through the end of the building and the trays of fruit placed on them crosswise, and then run in. Thus arranged, with the three tiers of rails filled with trays of fruit, about one and a half or two barrels of fruit can be dried at once, requiring about twenty-four hours to complete the process. The trays nearest the fire, of course, will dry the fastest, and with the convenience of the railroad and the shutters in the end of the building, they may be drawn out and changed to the upper rails, when the whole may be equally dried within the twenty-four hours in the most perfect and uniform manner, without the least burning. The fire is made on the bottom of the furnace; which consumes less fuel, and keeps up a slow and more uniform heat than if placed above the draft.

In some instances I have seen old steam boilers of small size, used for the furnace and flues, and these where they can be obtained cheap, answer every purpose; these radiate the heat readily, and a small amount of fire answers the purpose.

There are many sections of the country where peaches and early apples cannot be readily sent to market, and at this season of the year, when grass is abundant, they are of less value to feed to swine, they may be dried in this way to good profit. In remote sections of the country fruit-growing may be made a source of considerable profit in this way. The demand for dried fruit will always be greater than the supply. H. P. B.

A Safe and Easy Method of Swarming.

I propose giving a few brief directions for a method of swarming bees, that I have practiced for several seasons, and which I think will be found useful to those who will give it a trial.

In the spring, when you are examining your colonies of bees, and arranging them for the season, see that each hive is placed near the ground, (a height of three or four inches I prefer,) and have a separate alighting board attached to each, reaching from the ground to the hive. Now hunt up your queens, and clip off one wing from each queen. A pair of small sharp-pointed scissors, with blades about an inch and a quarter long, that can be carried in the vest pocket, will be found very convenient for this purpose. With a little practice you will find that the wing of a queen can be taken off while she is running on the frame among the bees, without touching her with the hand, or injuring her in any way. Get ready a few queen cages—anything that will hold a queen securely will answer—but a cylinder made of number 8 or 10 wire gauze, about three inches long and three-fourths of an inch in diameter, with a cork fitting in each end is very good. You are now ready for your bees to swarm. When you see them coming out, look out for the queen; she will be found very easily, on the alighting board or near it. Put her in a cage, and attach the cage by a wire or piece of string, to the limb of a tree, or lay her on the top of an empty hive in the shade, where the bees will find her. They will cluster around her, and wait until you are ready to hive them. Now remove the parent stock to a new stand, and arrange an empty hive in the place of it. Take the cage containing the queen from the cluster of bees, and open it at the mouth of the new hive. The queen will enter and the bees will soon follow and hive themselves. If you have any objection to hunting in the cluster of bees with your fingers, for the cage containing the queen, which I have not, you may hide the queen where the bees cannot find her until you are ready to put her in the hive; but in this case you must be quick in your motions, for the bees will sometimes return without clustering at all.

The next thing to be done is to examine the parent stock, and cut out the queen cells and give them a fertile queen, a number of which should always be kept on hand during the swarming season. My experience thus far is, that a stock of bees that has swarmed within a few days, will always receive a new queen without any preparation. I usually put the queen in a cage such as I have described, and lay her on top of the frames among the bees, while I am looking over the hive, and when I have done I let her out. It is highly necessary to clip a wing of the new queen before you introduce her, as, if the honey season continues, she may be expected to come out again with a powerful swarm in a little over three weeks from the time she was introduced, when the whole process must be gone through with again. With Italian bees, to which I am now more particularly referring, you may allow very late swarms to issue, and by giving them, if necessary, a frame of sealed honey from some of your other colonies, to encourage them until the second crop of red clover comes in blossom, they will then very rapidly fill their hives, and give you a considerable surplus besides, and will also frequently swarm again if you will allow them to do so, which I do not, as my principal difficulty is, not in getting swarms, but in preventing my bees from increasing more rapidly than I can take charge of them.

The raising of queens to give to swarms, which is another branch of bee-keeping for which I have not room here, gives rise to so great an increase of bees, and what is of still greater value, new worker comb, that I am entirely indifferent to the issuing of swarms, unless they occur very early in the season, preferring the honey to the bees. What is commonly understood by "artificial swarming," I disapprove of entirely. I have tried it, but have never found that bees, forced to swarm, would work with the same vigor and success as those that issued naturally. Neither have I any faith in "non-swarming hives,"—so called. The instinct of swarming was created with the bee, and swarm they will when the time comes, unless you confine the queen, which for several reasons is not advisable. The method that I advocate makes every hive a certain non-swarmer, or otherwise, just as the owner pleases, and frequently within half an hour of the bees issuing, they will be found returned and at work in the honey boxes, to all appearance just as vigorously as before they issued.

There are also several other advantages of this mode of swarming, to some of which I will just allude. The shifting of the parent stock is a great advantage. It insures a powerful swarm, as all the bees that were in the fields at the time of swarming, will of course return to the old stand. The parent stock will also lose bees for several days, which the swarm will gain, and notwithstanding this great loss, the parent stock will be all the stronger for it in the end, as it will give the new queen a chance of laying in the cells as they are vacated by the young bees, before they can be filled with honey. It is to this circumstance, no doubt, that the great strength of the second swarm is to be attributed. I consider it no small advantage that I can leave home at any time during the swarming season, and be positively certain that I will not lose my best swarms while I am away. It is some small advantage that I am no longer called on to chase fugitive swarms, or to climb trees and cut off limbs at the risk of my neck, or perhaps, when holding a hiving box under a swarm, to have the limb shaken a moment too soon, and the swarm, instead of falling into the box, to fall all over me. As I use no protection to face or hands in swarming, this would be unpleasant.

It is hardly within the scope of this communication to treat of introducing queens, but having seen what is called the Aspinwall method, endorsed by pretty high authority, I would say that to me it has a barbarous aspect. The moment that a queen is dipped in honey, the orifices of her breathing tubes are of course closed, and she commences suffocating and the injury she receives depends entirely upon the time it takes the bees to clean her off. Besides this, if the queen, be not offered until a week after the old queen is taken away, and the queen cells are all cut out, it is entirely unnecessary. I have never met with a case where the bees under such circumstances, would not receive any queen that was offered them, within five or six minutes of her being offered, and without any preparation whatever. I usually introduce my queens very soon after the old one is taken away, seldom leaving it later than the next day, and preferring to do so before the queen cells are commenced. I cannot at this moment recollect an instance where I failed of success since I adopted my present method of introducing queens.

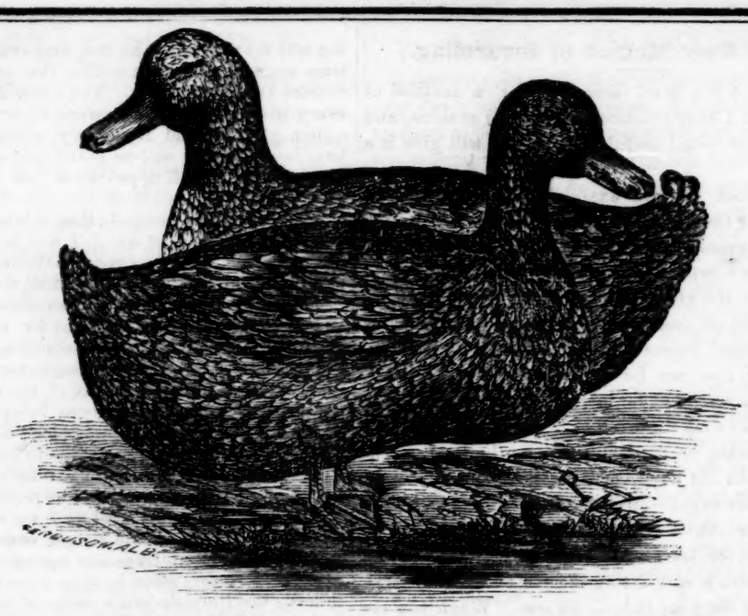
Hulmeville, Pa. C. W. TAYLOR.

CURRANT WORMS.

I observed in the Co. Gent., a short time since, a method to destroy currant bush worms, by applying lime. I do not like this method, nor anything else put on the bushes, for the reason that the worms make their appearance when the currants are about half grown; hence whatever is put on the bushes spoils the currants.

I have practiced a method for a number of years, which is easy, cheap, and most effectual. As soon as I perceive the worms I take an empty tin pan (the size of about 12 quarts) in one hand and a little stick a foot long, and as big as my finger, in the other; thus prepared, I hold the pan under each stem of the currant bush, strike with the the stick on the stem of the bush, which jars off the worms into the pan. This I do to every stem of the bush; the upright stems I bend over, so that the worms shall fall into the pan. Thus serve every bush about three times, 3 or 4 days apart. When the worms crawl up the sides of the pan shake them down; when you have many in the pan throw them into the fire. A man will thus go round 40 or 50 bushes in an hour. Thus the worms are destroyed for the present, and the currants perfectly clean. If the worms are not destroyed, in two or three years the bushes will die. John T. Addoms. *West Plattsburgh.*

☞ An Agricultural Show on a large scale is proposed at an early period at the city of Calcutta, India.



THE CAYUGA BLACK DUCK---ITS HISTORY, ORIGIN, &c.

This bird derives its name from the lake on which it is supposed to have been first discovered. But of its origin, like that of the domestic fowl, little is now known. It is very natural, therefore, to inquire whence so remarkable and valuable a bird was originally obtained; but the conclusion seems to be that it results from the intermixture of the Wild Black Duck, (*Anas obscuria*,) not uncommon in our lakes and rivers; this appears to be the popular opinion at the present time, and if we are limited to any one of the wild breeds of this genus, now known to us, in our inquiries for the probable ancestor, it is to the *Wild Black* duck, in our humble opinion, the honor should be assigned.

This species, as we are informed, has been domesticated in several places, and was quite common some fifty years ago, in the barn-yards in the vicinity of Boston, &c. "In the year 1812," says Dr. Bachman, in a note addressed to Mr. Audubon, "I saw in Duchess county in the State of New-York, at the house of a miller, a fine flock of ducks, to the number of at least thirty, which from their peculiar appearance, struck me as different from any I had before seen among the different varieties of the tame duck. On inquiry, I was informed that three years before a pair of these ducks had been captured in the mill pond. They were kept in the poultry-yard, and it was said were easily tamed. One joint of the wing was taken off to prevent their flying away. In the following spring they were suffered to go into the pond, and they returned daily to the house to be fed. They built their nests on the edge of the pond, and reared large broods. The family of the miller used them occasionally as food, and considered them equal in flavor to the common duck, and were easily raised. The old males were more beautiful than any I have examined since, and as yet domestication has produced no variety in their plumage."

"The young of this species,"—the Wild Black duck—says Audubon, "grow with remarkable rapidity, and, like the Mallard, of which they seem to be only a variety, acquire the full beauty of their spring plumage before the season of reproduction commences. * * * * In the early part of autumn the young afford delicious eating, in our opinion very much superior to the famous and more celebrated canvass-back duck."

"It is admitted," says a writer, "that our Cayuga ducks originally sprung from the Wild Black duck; however altered they may now appear in bulk, color or habits, the essential habits remain the same; no disinclination to breed with each other is evinced between them, and the offspring are as prolific as their mutual parents. The general tone of their plumage is closely repeated in all specimens."

For the following interesting account, and the very spirited portraits of the Cayuga Black ducks figured at the head of this article, we are indebted to the politeness of Mr. J. R. Page, of Sennet, Cayuga county, who is a successful breeder of them:

"Of the origin of the Cayuga duck," says Mr. Page, "I cannot give anything reliable. This duck has been bred in the county so long, that all positive traces of the origin, so far as I can learn, is lost. Tradition says they are descended from a sort of wild ducks that stop in Cayuga Lake and Seneca River, on their passage North and South, fall and spring; yet from hunters I have never been able to obtain or hear of any closely resembling them, either in weights or feathers. Yet they are called the 'Big Black duck,' 'Cayuga,' or 'Lake duck' The first I ever heard of them was between twenty and thirty years ago. A farmer near Montezuma, on Seneca River, had a flock of ducks bred from wild ducks he had caught, and that they were very large and fine. Another tradition is, that they are a stock brought from one of the Hudson River counties," [probably those mentioned by Dr. Bachman,] "but the general belief is as above, that they originated from a wild stock.

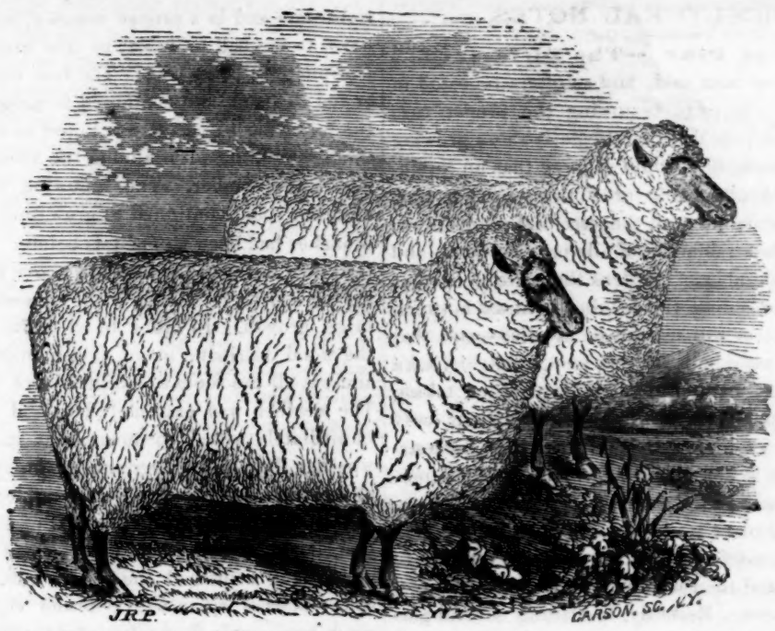
"The Black Cayuga duck in perfection, is black with a white collar on neck, or white flecks on neck and breast—rarely black without white, and as the white seems inclined to increase, we usually select them nearly or quite black for breeding. The duck has a faint green tint on head, neck and wings. The drakes usually show more white makings than ducks, and the green tint on head and neck is more strongly marked. They differ from the East Indian and Buenos Ayrean ducks very materially, are much larger, longer in body, and shorter in leg, better feeders, but are not so intense in color; indeed, beside the East Indian, (and I have the latter,) the Cayuga looks brown."

"The plumage of the Cayuga duck," says another writer, "is of great richness, much resembles the wild duck; the the drake's especially is magnificent, its head and neck being a rich lustrous green, with a white ring at the base of the neck, breast of a reddish brown, the remainder of the body and wings partaking very greatly of the Wild Mallard.

CHARACTERISTICS. — "When well fed," continues Mr. Page, "the ducks begin to lay about the first of April, and usually give an egg every day until she has laid eighty or ninety, when she will make her nest and sit if allowed; if not, will generally lay a litter in September,

"The Cayuga duck is hardy, good size, and for the table is superior to all other ducks or poultry of any sort; flesh quite dark and high flavored. If well fed they become very fat; can be readily made so fat they can't step over a broom stick; cannot raise themselves from the ground by their wings, a foot wide board keeping my ducks from my little trout pond. My flock last year weighed—ducks, one to three years old, 7 to 7½ lbs. each. Drakes 9 lbs., ducks 8 lbs., or 17 lbs. the pair; yet these are extreme weights, and only reached by careful feeding, and in very small flocks; 12 to 14 lbs. the pair would be a good average in large flocks. I once had a small flock that averaged at six months, 16 lbs. the pair, but they had been forced to their utmost, and never gained weight after six months."

Another writer says—"the Cayuga duck is very quiet in



Two South-Down Ewes, two years old. Bred by and property of Samuel Thorne Thornedale Washington Hollow, Duchess County, New-York.

its habits; can't fly, rarely able to rise from the ground, a fence one foot high will turn them; not disposed to wander from home; commence laying about the last of March, fifty to ninety eggs, when they wish to sit if everything is convenient; sit well; careless mothers, cross readily with other ducks, and produce is certain."

"One of my ducks," continues Mr. Page, "showed a disposition to nest early this year; set on 14 eggs; hatched 13 young, and bids fair to raise all of them, as they are now, (July,) several weeks old, yet the duck and young ones are more often seen apart than together." C. N. BEMENT.

Stamford, August 17, 1863.

THE NEW-JERSEY STATE FAIR, which was held at Paterson, Sept. 8–11, is said to have been a very creditable one. A large number of people from all parts of the State were present, and the list of articles for exhibition were far more numerous than on any former occasion. The trial of horses excited considerable interest. The fair on the whole was a success, although, owing to the delay in forwarding articles for exhibition, the first days were not as promising as were expected.

VERMONT STATE FAIR.—This Fair was held at Rutland on the 8—11th, and the weather proving favorable, there was a large attendance. On the 8th there was a convention of wool-growers and an address by Col. H. S. RANDALL, on the Sheep of Vermont, and a report by Col. NEEDHAM, the Secretary of the Society, of his visit to the Hamburgh Exhibition, dwelling especially on the part that Vermont sheep played in that show. The Middlebury Register says—"In most departments the show was less imposing and generally of less interest than usual, though very many articles of great merit were exhibited in each department, and of many of them we would like to make special mention. In the department of Sheep the exhibition was really excellent. Of this it would be difficult to speak too emphatically. Vermont farmers now fully understand that their great strength lies here, and we are glad to see that they appreciate this important fact."

☞ Messrs. LEWIS & GOODWIN of Albany, have laid on our table a sample of the Lithographic View of the Fair Grounds of the State Society at Utica last week, advertised by them in another column. It gives a very good idea of the enclosure, and those who were there should send for a copy as a memento of the occasion.

THE LOMBARD PLUM.—This is on the whole the most certain and reliable plum for the Northern States. During the severest winters, it has been scarcely affected, while other varieties have been badly injured—it is a fine strong grower, and an abundant bearer. In recently examining an experimental orchard of about 60 varieties, which had been nearly all stripped of its fruit by the curculio, (owing to absence of the proprietor,) the Lombard had a fair crop. The fruit although not of the very highest quality, is pleasant and agreeable, and better than some famous sorts—such as the Washington, Smith's Orleans, &c.

SUCCESSFUL UNDERDRAINING IN THE WEST.—SANFORD HOWARD, of the Boston Cultivator, gives an interesting statement in that paper, of a successful experiment in draining the black, heavy soil, eight miles south of Chicago, for raising garden vegetables. George W. Gage, one of the proprietors of the Tremont House, Chicago, purchased fifty acres of this land about five years ago. A few brush drains were made the first year, by way of trial. The result was so favorable that 30 acres have since been brought under cultivation, and of these twenty acres were drained last fall. The receipts, consequently, are, as yet, only partial; but for the year ending last spring, they had amounted to $5,720; for three months of the early part of the present season, they amounted ta $1,773, $800 of which had been received from half an acre of ground of Wilson's strawberry. Melons have succeeded finely, when sheltered from the light winds, between rows of peas eight feet apart, the pea sticks being allowed to remain for that purpose.

WHEAT TO CHINA.—The second lot of grain ever shipped from California to China, left San Francisco lately. It was sent in bulk, to the amount of one hundred and twenty tons. The same vessel carried potatoes and flour to our Celestial friends.

HORTICULTURAL NOTES.

The Culture of Pear --The Difference.

After so much has been said, and so often repeated in regard to the importance of bestowing the proper care and treatment upon pear trees, particularly those growing upon the quince stock, one would suppose that no intelligent planter would attempt to grow this valuable fruit without first understanding all the essential requisites to success, with the determinationt of ully provide them, and yet in the largest number of gardens these are altogether neglected, notwithstanding the striking contrast between their own practice—or rather want of practice—and that of their successful neighbors. Some men, amateurs, take hold of this subject, with no previous experience, taking the horticultural publications of the day as their only guide, and at once their success is all that could be desired, producing fruit in abundance and in the greatest perfection. Others, seeing the success of their neighbors, buy their trees and plant them out, and then leave them to take care of themselves, and fail in their attempt to grow good fruit, and then wonder why they do not succeed as well as others. Recently, in visiting several gardens in my neighborhood, the contrast between care and neglect is painfully apparent. A., a mechanic, has, in a small garden, besides most other kinds of fruit, about one hundred pear trees, standard and dwarf. These trees were planted on ground well trenched and highly manured, and have been properly pinched back and trained from the beginning. They are now models of health, symmetry and beauty. These trees are now generally loaded with the largest and fairest specimens of fruit. The soil of this garden is light and sandy; besides being well manured in the beginning, in dry weather, and at other times it receives about the trees, copious supplies of liquid manure, which is kept constantly on hand in a tank prepared for the purpose. No great labor is bestowed upon this work at the expense of the regular employment; but it rather serves to fill up the leisure half-hours of the morning and the evening, which are amply remunerated by the recreation and pleasure it affords.

Neighbor B., possessing ample means, has also planted a choice collection of pear trees, among other fruits. But his mind is more occupied with his railroad and other *stocks* than with *pear stocks*. These trees occupy various positions, some in the untrenched garden, and others in the lawn in the midst of the grass. In the more favored situations in the garden, the trees have made considerable growth; the branches having never been pinched or cut back, their long arms now extend in every direction, and are swayed about by every wind that blows. The most of them, however, have made but little growth of wood, but set profusely with blossoms every spring; the fruit, knotty and dwarfed, is permitted to remain and ripen, over-taxing the vital powers of the trees until hardly a spark of life remains, and in a short time the most of them will entirely die out. This is the fate of more than half the dwarf and other pear trees that have been planted. Trees must be planted in good soil, and be as well cultivated as any garden crop, otherwise they yield nothing but disappointment to the proprietor.

Root-Pruning Trees.

It sometimes happens that trees continue to make a too rapid growth to near the close of the season, when the wood is not sufficiently matured to escape injury from frosts during the winter. Root pruning, if done at the right time and in a proper manner, will obviate this. I have twice had to resort to this measure to save a fine Downing Mulberry tree. The tree was planted in a rather too rich soil, and continued to make a late growth, and the following winter it was killed to within three feet of the ground, notwithstanding the branches were pinched back in September. The following year it again started vigorously and continued to grow until frost, although the branches had been stopped as before. Again it was winter-killed down to the last bud above the graft. The following spring it started with increased vigor, making a large growth. In order to check its growth and cause the wood to ripen, about midsummer I took the spade and cut all the roots to within twelve inches of the stem. The weather was extremely hot and dry; the branches immediately wilted so much that it appeared doubtful whether they would ever rise again. A bucket of water at the roots, and the top well sprinkled at night, and for a day or two shaded from the heat of the sun, revived the branches, but the growth was checked; and the wood ripened, and withstood the winter well. The present season it started again with renewed vigor; the spade has again been applied, causing slight wilting; the growth is checked, and the wood is ripening well.

It is not often that our common fruit trees require this kind of treatment, but there are others, and this mulberry is one of them, that require it when it happens to get on a too rich soil. After two or three years it grows less vigorously and matures its wood well, and is free from the danger of winter-killing.

The Concord Grape.

This grape has rather grown in favor among cultivators, as it has been extended over the country, and particularly in climates more mild than that in which it originated. It is a long jointed, strong grower, and will prosper under as much ill usage as any other variety. The quality of the fruit is equal, and in milder climates superior to the Isabella, but the bunches are not compact and well formed. During the present wet season the fruit has suffered severely by rot, far greater than any other among a dozen or more kinds, growing in the same garden. A dry, porous soil, not too rich, suits the Concord best.

Ichneumon Flies.

It is one of the wonderful provisions of a wise Creator, that the insect tribes that are most destructive to the crops of the farmer have their parasitic enemies. But for this, the garden fruits, the cereal grains, and other crops, would often be entirely destroyed by the various insects that prey upon them. From the minute wheat midge, the Hessian fly, the plant-louse, up to the huge tobacco-worm, all have their insect enemies. These belong to the Family Ichneumonidæ, which embrace many species. Of the operations of those that feed upon the smaller insects I have had no opportunity to observe, but those that prey upon the larger worms and caterpillars have been remarkably abundant and destructive the present season. Every year the large green worms that feed upon the grapevine leaves, and the tobacco-worms that also feed upon the potato and tomato vines, &c., may be seen with numerous little cocoons attached endwise to their backs. These are produced by the little insects, after having passed the larvæ state within the worm, where they feed upon its juices, and thus exhausting and eventually killing it. The parent of these little insects is called the Ichneumon-

fly. It deposits its eggs, with great dexterity in the body of its victim, where they soon hatch into little worms, and when they have grown to full size come to the surface and pass to the chrysalis state, after having spun their minute cocoon. There is hardly a worm to be seen the present season upon the grapevines and tomato-vines, and many other plants, that has not become the victim of these little wasp-like flies. There are generally from fifteen to thirty eggs deposited in a single worm. The worm thus encumbered soon ceases to eat, and continues to linger until it finally dies about the time the little insects arrive at maturity. Those species that attack the smaller insects, like the Hessian fly and plant lice, are said never to deposit more than a single egg in an individual; more than this would fail to arrive at maturity, for want of sufficient sustenance. H. P. B.

CULTURE OF THE ONION

Eds. Co. Gent.—I herein give you our manner of raising onions on the Chester peat meadows. Our soil is a decomposed vegetable matter resting on a deep turf. We drain the land thoroughly, and add one load of upland soil to a square rod once, which answers for all time. This keeps the onions from burning out. We plow as soon in the spring as the ground will allow, which is about the first of March. We plow by back furrowing to the center of the lot. When we have made six rounds, rake down smoothly—then plow and rake in the same manner until done. We manure with well rotted horse manure or poudrette, and put on after the second weeding fifty bushels of wood ashes to the acre, just before a rain if we can. After the ground is raked down we make a marker like a common rake, only larger, of course, setting the teeth 14 to 16 inches apart. We draw a line across the field and let the outside tooth of the marker follow the line, which gives us a straight row. After the first time across we let the outside tooth run in the mark last made.

We procure our seed at Wethersfield because we have always found it pure. We sow about four pounds of seed to the acre. We then roll the ground. The best seed drill used we get at Wethersfield—the price $10. It is a sower and cultivator. W. B. King. *Orange Co., N. Y.*

Selecting Seed Corn.

It is a common practice with farmers to select corn from their cribs in the spring of the year for seed, and as a general thing one-third at least fails to germinate. Corn that is exposed to the weather is frequently injured from dampness. The proper time to select seed corn is in the fall, say in October. Go through the field and select the ears that are sound and ripe, tie the husks together, and hang it up in a dry place until it is thoroughly dry; then put it in barrels or boxes where it is not exposed to the weather, and you will have sound corn in the spring.

20th Indiana Reg. HENRY E. OLINGER.

BULLARD'S HAY-TEDDER.

Having seen several notices of Bullard's Hay Tedder in your paper, I will say what they are thought of here where they have been used longest. There is but one opinion among those who use those, and that is, that they are one of the most labor-saving machines yet invented for the farmer's use. Many say, that use both, that were they obliged to give up the mowing machine or the Hay-Tedder, it would be the former. I understand from Mr. Bullard, the inventor, that arrangements are made by which your State will be supplied next year, equal to any demand there may be. E. P. Haynes.

Worcester Co., Mass.

THE BLACKBERRY.

The introduction of the New Rochelle Blackberry has given an impetus to the cultivation of different varieties of this fruit, and it may lead to the discovery of some better kinds. The New Rochelle is a strong and vigorous grower, and bears abundant crops, but it is inferior in quality to many of the wild kinds growing in the fields and hedges; it must be fully or over ripe, to be passable. A search among the wild kinds in a good season like the present, would discover much better varieties. More than forty years ago, and before the cultivation of this fruit was thought of, my father, in gathering wild shrubs from the woods, brought home and planted half a dozen blackberry bushes. After they became established they bore abundant crops of the best fruit of that kind that I have ever since tasted. The berry was hardly as large round as the New Rochelle, but considerably longer. The plant was equally as strong a grower, and bore as profusely. The growth and productiveness, and the superior quality of the fruit, which was sweet and of the richest flavor, was considered by those who tasted it, to be the direct result of cultivation, and that any of the wild sorts, with the same treatment would be equal to it. It is hardly probable that this is the case. This was a chance variety of superior excellence, such as I hardly expect to see soon again. It would be a most valuable acquisition now, but the bushes have long since given place to a building, and the variety entirely lost. If a little effort was made by the curious in such matters, during the fruiting season, no doubt some superior varieties might be secured from the fields. H. P. B.

Remedy for Cramp in the Stomach.

As The Cultivator is intended to do good, and every reader is requested to transmit some experience, I respectfully ask space for the following receipt. I have used it, and cured my wife of the cramps in the stomach, and also relieved for a long time the wife of a friend of mine who took the cramps in her stomach shortly after giving birth to a child

The remedy is simply to take a commou foot-tub and put enough warm water in it to cover nearly half the leg to the knee; put a good handful of table salt and a tablespoonful of mustard into the tub, and let it dissolve in the water; then put your feet into the water, cover your knees well with a blanket to keep the steam around your limbs, and keep the water as hot as you can bear it for fifteen or twenty minutes, and I assure any lady following up the above advice, of immediate relief, if not altogether cured. Jacob Fritz.

Walla Walla, Oregon.

Remedy for Ivy Poison.

Editors Co. Gent.—For the information and relief of your correspondent, W., say to him through the Gent., that if he will procure from the druggist or a physician, a solution of *corrosive sublimate*, and apply a little to the sores where he is poisoned, and no where else, as soon as they become watery, he will fear the Ivy no more. I speak from *certain* knowledge, and have the article on hand to use as occasion requires.

Great care should be taken in the use of the prescription, as it is a deadly poison. I have seen it used by persons poisoned with Ivy many a time, and it proved a certain and immediate cure. W. H. Benson. *Chautauqua Co., N. Y.*

DISCUSSIONS AT THE N. Y. STATE FAIR.

[Reported for the COUNTRY GENTLEMAN.]

Mineral Manures.

Meetings for discussion were held every evening during the State Fair, in the City Hall at Utica, and, as usual, were well attended—many of the best farmers in the State being present. The subject selected for discussion the first evening (Tuesday) was:

"*The most economical method of supplying the surface soil with the mineral food of plants, whether by its direct application, by subsoiling, or by the plowing in of deep rooted plants.*"

The question to be restricted to those cases where the surface soil has been subject, for a period of at least fifteen years, to the ordinary methods of cultivation by a rotation of crops, and where the subsoil, whether of sedimentary or primary formation, is not below the surface of an average distance of over six feet. In all instances of such soil and subsoil adduced for illustration in the discussion, the same to be accurately described.

The Hon. A. B. CONGER of Rockland Co., President of the Meetings, opened the discussion. He remarked that it was now well understood that land which had been under ordinary cultivation for fifteen or twenty years, was deficient in mineral plant-food—the crops removed from the land robbed the soil of mineral ingredients. Many soils that formerly produced good crops, now fail. It had been thought that the climate had changed, but agricultural chemistry had shown us that the soil had been robbed of the food of plants. It is thought that fifteen years of such cropping as is frequently adopted, would abstract so much of the food of plants that the soil would no longer give an adequate return for the labor bestowed in its cultivation.

It might excite some surprise that the question was restricted to a soil where the subsoil was not more than six feet below the surface. Many plants throw their roots to a greater distance than six feet, and bring up food from the subsoil. The Hon. GEO. GEDDES had sent a clover plant to the Society's Rooms at Albany, that had a root four feet two inches in length. Lucern will throw its roots over thirty feet; rape over six feet—and many other plants send out roots to a much greater distance than is generally supposed. Now if the surface is deficient in mineral plant-food, and the subsoil is rich, subsoiling will allow the roots to penetrate this rich subsoil. The small fibrous roots will take up the mineral plant-food, and it will be deposited in the bulbs or larger roots near the surface; and when these are plowed under, the surface soil will be enriched for the following crops.

This is one way of furnishing the surface soil with mineral plant-food. There is another way—*purchasing mineral manures.* Wheat requires phosphoric acid. Farmers usually provide this in bones and American guano. The practical question is, whether it is more economical to purchase mineral manures, or to break up the subsoil and allow the roots of plants to penetrate it and bring up mineral food to the surface; and if the latter, the question will then arise whether to plow under these plants, or feed them to stock and return the manure. In growing wheat is it best to buy bones, or to subsoil and plow in the clover? He would call on Mr. JOSEPH HARRIS of the *Genesee Farmer*, for his views on the subject.

Mr. HARRIS said that he had received no intimation that this subject would be brought before the meeting, and he was not aware till an hour ago, that he had been selected to open the discussion. He was entirely unprepared to speak on the subject. Taking the question as it stood, and confining ourselves to the *mineral* food of plants, he had no hesitation in expressing the opinion that the most economical method would be to *purchase* mineral manures. The mineral food of plants consists essentially of eight ingredients—four acids and four alkalies, or alkaline earths. The former were phosphoric acid, sulphuric acid, silicic acid and chlorine; the latter, potash, soda, lime and magnesia. We could get phosphoric acid in bones or phosphatic guanos, such as Jarvis' or Baker's Island, which were exceedingly rich in phosphoric acid. Sulphuric acid, as well as lime, could be cheaply purchased in the form of plaster, (gypsum or sulphate of lime.) Chlorine, as well as soda, could be had from common salt, (chloride of sodium.) Silicic acid or *sand*, we need say nothing about. Four pounds of bones, or three pounds of Jarvis' or Baker's Island guano, contained phosphoric acid enough for a bushel of wheat. But will an addition of four pounds of bones to the soil, or three pounds of guano, give us an extra bushel of wheat? We all know it will not. All the *mineral matter* in a ton of barn-yard manure, could be purchasedfor 25 cents. But granting that we supply the soil with a sufficient quantity of *mineral* plant-food, is that all we need, to grow large crops? *It is not.* Mr. LAWES of England, has grown wheat from the same soil for twenty years in succession, and the *average* yield of the unmanured plot is 16¼ bushels. On another plot, supplied with an abundant supply of phosphates, potash and other *mineral* manures, the average yield was 18¼ bushels, or only an increase of two bushels per acre. While on another plot, where ammonia had been added to the minerals, the average yield was over 34 bushels per acre—or an increase over the minerals alone of 16 bushels per acre. Plants must have mineral manures, but these *alone* will not give us large crops. We need ammonia, and there is no practical and economical method of furnishing ammonia, that does not at the same time furnish all the mineral matter which the increase caused by the ammonia requires.

SOLON ROBINSON.—Tell us how to get ammonia!

JOSEPH HARRIS.—From clover, peas, beans, &c. Consume them on the farm, and carefully preserve and return the manure to the soil. Feed more grain; straw will not make rich manure. Clover hay will make manure four times as rich as straw, and nearly twice as rich as that made from timothy hay. Peas afford manure twice as rich as corn. Oil-cake is even still better than peas and beans.

SOLON ROBINSON said there were parties in New-York who bought up all the chandlers' greaves and shipped them to Europe. They paid $25 per ton for them. These greaves are rich in ammonia, and the British farmers seemed to appreciate their value.

The Hon. T. C. PETERS of Genesee county, would ask Mr. HARRIS how we are to get ammonia where clover is not grown. There is only 19 per cent of land in the State where we grow wheat. In Duchess county, where 50 bushels of wheat per acre was once grown, the average now is only five bushels per acre! The farmers there are now growing rye. In the dairy districts, where farming is quite as profitable as in any other section of the State, but where clover is not grown, how are we to get ammonia?

Mr. HARRIS did not wish to be understood as saying that clover was the only crop that would furnish ammonia. He thought on solis where clover flourishes as well as it does in Western New-York, clover was the best crop that could be grown to enrich the land. But of course *grass* would also enrich the land when fed to cattle, and the

manure carefully husbanded and returned to the soil; but he thought grass was not as good for this purpose as clover. He thought it quite probable that in the dairy districts, bone dust, or American guano, or superphosphate, might be used as a manure for grass land. But the great need was barn-yard manure of better quality. Farmers should feed more grain. He thought, too, that in the dairy districts irrigation might be practiced with advantage. He had seen many little streams running down the hill-sides, that might with a little engineering skill be turned on a portion of the grass land. This would give a heavy crop grass—and this would enable a farmer to keep more stock and make more manure, which could be used to enrich other portions of the farm.

Gen. MILLER of Delaware Co., said there was land in his neighborhood that would not grow clover, and much that could not be plowed. Ashes are used with great benefit on grass-lands. He believed in barn-yard manures; but he also thought *mineral* manures were valuable. We do not take *time* into consideration. We apply ammonia and get a large crop for a year or two, but it acts merely as a stimulant. The soil is afterwards all the poorer for it. All the old grain growing regions of the world—except the valley of the Nile, which is kept up by the annual deposit from the water—are now sterile. They are exhausted. Scientific men tell us that there is a certain definite quantity of mineral plant-food in the soil, and if we keep taking it from the land, the time will come when we can no longer grow crops. We should return to the soil all the elements that we take from it. In no other way can we keep up its fertility.

JOSEPH HARRIS said there was one thing of which we might be certain—so long as we could grow clover, there was sufficient mineral matter in the soil to grow wheat. The first symptom of exhaustion would be manifested in the clover crop. There may be soils where clover will not grow, and it might be necessary to apply mineral manures to the soil; but even in this case it was a question whether we had not better use manures which furnish ammonia as well as mineral matter.

LUTHER H. TUCKER of the *Country Gentleman*, said that though it was true that there is a definite amount of mineral matter in the soil, yet tables had been prepared by eminent chemists, showing that there was enough in most soils to last for thousands of years.

S. WALRATH of St. Lawrence Co., believed in deep and thorough cultivation of the soil. He does not use mineral manures—does not think we need them. Underdraining and subsoiling *had doubled the crops* on his farm. He grows clover and roots. Formerly his land was infested with thistles, but in a few years after subsoiling, and good, clean culture between the rows of his root crops, they had disappeared. He makes all the manure he can—never sells any grain. Would rather buy a hundred bushels of grain than sell it.

The Rev. Mr. LOOMIS of Cayuga, alluded to the fact that many grave yards exhibit every symptom of poverty, while just outside the wall, where the land is under cultivation, the crops are good. He did not think we could *stimulate* the soil. Had no fears that our lands could be exhausted.

Mr. WALRATH differed with many in regard to deep plowing. On his land very deep plowing was injurious, but *subsoiling* (that is, merely breaking up the hard-pan and loosening the soil without bringing it to the surface,) was very beneficial.

LUTHER H. TUCKER asked if we do not get in barn-yard manure, just that *mixture* of ammonia and mineral matter that our crops needed? He had spent some time recently in a dairy district of this State, and he observed that those farmers succeeded best who paid most attention to top-dressing. One farmer in Chenango county had rented out half of his farm, and by the aid of top-dressing was enabled to raise more hay from the other half than he formerly raised from the whole. Many farmers let their barn-yard manure lie exposed to winds and rains till it was almost worthless; but others are paying more attention not only to making more and richer manure, but to its careful preservation. In some experiments made in Massachusetts on grass, where various kinds of manure were used, such as ashes, superphosphate, guano, &c., the land dressed with cow dung was the best,—at least, if not so the first year, it was so in the end. In some experiments made by Mr. HARRIS near Rochester, where various mineral manures and ammoniacal manures were used alone and combined, it was found that the *mixture* of the two together gave a greater increase of hay than the total increase obtained from the various plots where the ingredients were used separately. In other words, the plot dressed with manures that most nearly resembled the richest kind of barn-yard dung, gave the best results. If you feed high, you get better manure, and if you buy grain, so much the better. The President of the Society, who had a farm in Westchester county where he was carrying out many useful experiments, used bone-dust to bring up his land to a productive stand-point—to produce grass, and thus make manures; and the question is, whether such mineral manures can be used on land too poor to produce good crops of clover or grass, more economically than resorting to the slower process of subsoiling, &c.

Gen. MILLER of Delaware county—Suppose we make all the manure that we can, shall we not still have to use bone dust, &c., to "keep the machinery running?"

SOLON ROBINSON—The question is not whether barn-yard manure is good—we all acknowledge that—but how to get enough of it. He had for several years been trying to ascertain which is the best manure to purchase, but had not yet discovered. Does not know which is the best. Salt he knows is good. Five bushels has given him a ton of hay increase per acre. But it might not be useful on all soils—farmers should experiment with it for themselves. He uses 10 bushels per acre on old meadows and on clover, and it has a good effect. He has also raised excellent turnips on salted land. It is a question whether any man can afford to draw manure two miles—or whether he had not better buy concentrated manures.

Hon. T. C. PETERS would make a suggestion in regard to this question. In all the "soft-water regions" of this State ashes were beneficial, and in the wheat regions plaster is beneficial. That settles two points. Taking the State through, he thinks that at present these two manures—ashes and plaster—are all that the generality of farmer can afford to use.

Mr. GARDNER of Putnam county, alluded to the practice of Dr. GRANT of Iona, in drawing large quantities of muck into his yards, and also large quantities of salt marsh grass, and treading them into manure. This manure he uses for his vineyards, and finds it excellent.

SOLON ROBINSON—The manure from salt hay is not worth drawing out of the yard. When mixed with muck it is good; but the question is, whether feeding marsh hay is profitable, or whether it would not be more profitable to purchase animal manures to compost with the muck.

FIELD CULTURE OF BEANS.

Messrs. Editors—In the Co. Gent., number 8, vol. xxii, page 128, Mr. A. L. Wood inquires about the bush bean as a field crop, its culture, &c. Being a young farmer, I offer my experience for what it may be worth.

1st. Select some warm, dry, gravelly soil, that is in a good state of cultivation; plow it deep and fine; harrow it well, then mark out your rows.

If I plant the small Pea bean, I mark my rows 20 inches apart, with a marker that will mark five rows at a time. For larger varieties mark wider.

2d. Secure the best beans for seed. I am very particular to have the seed all of the same variety, for various reasons, viz., if one variety, the crop, when fixed up for market will have an uniform appearance as to size, which is very essential—2d, they will all ripen off at the same time, which will add much to their value for marketing—3d, if mixed, early and late beans of the same variety, it will be almost impossible to get them all secured in good market order.

Planting.—I use a bean planter, and plant in drills instead of hills, as I think they make a better crop. Usually use in planting an acre of small beans, 18 quarts of seed, which gives a good stock. Having finished planting, I take a good heavy roller, and roll all down smoothly, which I find is of very great advantage to the crop.

Cultivating.—You can use a common cultivator by taking out the back teeth, if it is so constructed that you cannot shut it up close. Be sure to stir all the soil around the beans, but be careful and do not hill them up, as it will be a damage to the crop, for this reason: beans that are hilled will almost always produce more or less black beans by the end of the pods drooping and entering the earth.

Time for Pulling—I have found by experiment that the best time to pull beans is just as quick as the greatest portion of the pods have turned yellow, and before they are hard in the pods, and while the leaves are all on the straw. Beans pulled at this stage of maturing, will weigh heavier, be brighter and whiter, and you will sustain no loss by shelling while pulling, which they will do if over ripe and dry.

Mode of Securing.—Beans, after being pulled a few hours, should be well stacked up in the field to dry and cure. I stack my beans in the following way, viz.:—First I get straight stakes from 8 to 10 feet in length, trimmed off smooth and sharpened. I take an iron bar and make a a good deep hole, and stick the stake firmly up—take two pieces of old boads 2½ feet long, (or such a matter,) and two or three inches wide, and nail them crosswise the stake, 12 or 15 inches from the ground; add four other bits of short wood to the two nailed to the stake, and you have all the necessary material for securing one stack of beans in good order. Build the stack thus:—Place the roots close to the stake and form a circle on the platform, (and see that they do not touch the ground,) and be particular in building up the stack. Press them down snug and tight, so they will not settle down from the finishing off point. To make your stacks in good shape, as you draw towards the top, place the bean straw more oblique around the stake, and the last added should be placed nearly perpendicular and well pressed down, and securely tied to the stake. If well stacked and pulled in season with leaves all on, they will come out in fine order. I have had stacks of beans done up in this way stand out for weeks in rainy damp weather, and take no damage. It is folly to stack up beans unless the leaves are on the straw, for they will not stand the test of bad wet weather. The leaves dry down, and being on the outside of the stacks, will make a covering next best to canvass for turning off water. F. *Grand Isle Co., Vt.*

WEANING LAMBS.

Eds. Co. Gent.—Although other subjects have received proper attention from your numerous correspondents, the subject of weaning lambs, seems to have escaped their notice. The cause of this neglect is doubtless owing to the inferiority of the subject as viewed by them, but when properly considered, is a subject which should arrest the attention of every sheep-breeder. Being dependent upon them to supply the deficiency occasioned by the sale and death of older sheep, it behooves us to look well to their interests and well being. It is impossible to give a flock of lambs the care and attention their feeble natures demand, if kept with the ewes until winter, without bestowing needless care upon the ewes. The time for separating the lamb from its dam, varies, according to the age of the lamb, which should be about four and a half months old. But the difference in the age of lambs dropped in the spring, is so slight that they might all be taken away at one time without injury to the lamb. I practice placing lambs after weaning, upon somewhat better feed, in order to compensate for the loss of the mother's milk, and my experience goes to prove that a little grain, judiciously fed, will not depreciate the value, nor injure the external appearance of the animal. It may be regarded by some as a difficult task to teach a lot of young lambs to eat grain, and some practice putting older sheep in the same inclosure, to teach them to eat, and come at the call; but all this is unnecessary if your lambs have been properly trained. As a general rule the lamb will possess the peculiar characteristics, and a disposition much like that of its mother, and if we have a flock of ewes that are tame, we may expect the lambs will be the same, if we keep them so by frequenting their enclosure, and forming an intimate acquaintance with the flock. Then, if your lambs are by themselves, they will not flee from your presence, as from the presence of a wolf, but on the contrary will rush toward you with an expressive look which seems to say, "give me some oats." A little caution is necessary at first, lest some of the tamer ones should eat too much. To obviate this difficulty, I practice feeding at first, only a sufficient amount for two or three, gradually increasing the amount as their confidence in me increases, and after feeding a few times, it is with difficulty that the grain can be placed in the trough, so great is their eagerness to obtain it. Lambs will thrive much better if taken from the ewes and weaned, than if the weaning is left discretionary with them, as it throws them at once upon their resources for subsistence, whereas, in case they are left with the ewes, they depend upon the milk, which, from its small amount, does them little, if any good, and the benefit derived is more than counterbalanced by the effort put forth to obtain it. If lambs are weaned, and taught to eat grain, as they should be, before winter sets in, they are in a much better condition to be brought into winter quarters, having acquired a habit of self-dependence for food, and being thoroughly skilled in the art of eating grain—two essential requirements for their physical development. The ewes, also, are in a much better condition for winter, as they gain rapidly in flesh as soon as the lambs cease annoying them by their constant efforts to suck. The ewes will shear from one-fourth to one-half a pound more per head, than if the lambs were left with them, as no time would be left for them to recruit. This additional quantity of wool might induce some to try the experiment, as farmers are quite apt to look after their pecuniary interests in preference to the comfort of their domestic animals.

Wayne County, N. Y. W. F. BAGGERLY

AGRICULTURAL EDUCATION.

Eds. Co. Gent.—Congress having made liberal grants to each of the States to endow Agricultural Colleges, it becomes a matter of interest to inquire what kind of institution an agricultural college ought to be.

If an agricultural college is to be a college for the purpose of teaching agriculture, it must fail; because agriculture is neither a science nor an art, but a handicraft or trade. As well establish colleges to teach shoe-making, or house-painting, or cotton-spinning, as to teach agriculture. Scientific agriculture, as it is called, cannot be said to exist as a science. It is aimed at and hoped for, but until analytical chemistry has been carried to a much greater perfection than at present, it must continue to be among the things hoped for, and not one of the things to be taught in colleges. Analytical chemistry discovers no difference between the components of cotton and sugar. Even in the common analysis of water, one of the most eminent chemists of New-England now confesses that the method hitherto pursued has been all wrong. If scientific agriculture is based upon the idea that by a knowledge of the component parts of vegetable products, added to a knowledge of the component parts of soils and manures, a given vegetable product may be obtained, very much as a cook makes a pudding by compounding the articles according to her receipt, the idea may be a very pleasing one, but while the fact is that chemists are as yet able to analyze vegetable products only in the rudest and most elementary manner, the idea cannot be carried into practice. What good farmer ever derived any benefit from an analysis of the soil? Is it not admitted that chemists can detect no difference between some of the most fertile and some of the most barren? Something may be taught of botany and the physiology of plants, but if agricultural colleges are to graduate a parcel of young men with a smattering of chemistry, a touch of botany, and an inkling of vegetable physiology, who think themselves good farmers, agricultural colleges will be a nuisance, because they will increase the great defect of American education, superficial knowledge. Scientific agriculture stands to-day with phrenology, and biology and magnetism. It is an undeveloped theory, not a science. Of practical sciences those only can be taught which admit of accumulated knowledge of facts leading to theories, which again are proved by the facts. But the known facts of agriculture are of the simplest kind, and discovered themselves for the most part while Adam delved. The theories of scientific agriculture are not yet proved by the facts.

Agricultural colleges then must simply be high schools for farmers. What makes a good farmer? The same qualities which make a good mechanic or man of business—intelligence, judgment, and industry. Can a school teach these to its pupils? To a certain extent, and indirectly, it can; but as it is the object of all schools to do so, your object and means will be the same as those of other good schools. If you wish to teach young farmers to know when they know a thing, and when they do not, you will not put them through a course of agricultural chemistry, for the result would probably be a persuasion that they knew something of that of which they knew nothing at all.

If then the noble endowments of Congress are to result in anything but a delusion and a snare, let those who are to direct the organization of these colleges pitch their profession low, and the results will be higher. If the colleges turn out well drilled lads, thoroughly grounded in an English education, knowing something of surveying, book-keeping, and mechanics, with such lessons in farming as they may learn by example and practice on a good farm, it will be well. Such boys will have a better education than George Washington. But if they graduate youths who think they know something of vegetable physiology, agricultural chemistry, and the theories of Liebig, they will merely produce a considerable number of badly educated men, who are worse than uneducated men, because they use their common sense less, and are more conceited. D.

HOW TO KEEP SWEET POTATOES.

Eds. Co. Gent.—I noticed some time since in your paper, an inquiry, "How to keep Sweet Potatoes." I will endeavor to give the mode practiced in this, the heaviest sweet potato growing county in the Union. When it is desired to keep but a few, barrels or dry-goods boxes are used. Place 3 by 4 pieces upon the floor, set the box upon them, a few *dry* leaves in the bottom of the box, pour in the potatoes, which should be exposed to air only long enough to dry off outside moisture, and all cut or eaten ones taken out. When the box is full, put a few dry leaves on top, cover loosely with the lid, leaving spaces for the moisture to escape. Place another box on top of it, and proceed to fill in the same way. The potatoes should be put at once where they are to remain—not left three or four days and then moved.

If the desire is to keep a quantity, houses are built of any desirable size, say 30 by 36 feet, of frame, two stories high, brick paned, and plastered—if a very dry situation, a cellar under—the floors not extending out to the walls by four inches—place 3 by 4 pieces against the walls of each story; board up to them 5 or 6 feet high; put dry leaves upon the floors, and then pour the potatoes upon them to the depth of about five feet, and cover over with dry leaves or straw. It is best to have loose boards the whole length of the room to put up to make bins 4 or 5 feet wide, for convenience in putting in and taking out. The lowest story that is used, must have dead air spaces under the potatoes—4 by 5 pieces laid down, and loose boards laid on them, on which the potatoes must be put.

The cellar will not keep them well unless very dry. While the house is filling, the door and windows must be kept open and the fire going. As soon as placed in the house the potatoes will commence "sweating," when every effort must be made to keep them well ventilated and dry. After the "sweating process" has gone through with, close the windows and shutters, except one window down a little for ventilation, and keep dark.

The stove must be placed in the lowest story used; the heat will flow through the dead air spaces between the walls and the potatoes, so that the upper rooms will be warmer than the lower. The heat should be kept at about 60 degrees.

Dig the potatoes before touched with frost, although a slight frost to kill leaves will not hurt. Potatoes to keep well, should be grown upon a dry land. The chief sources of success are—ventilate well while sweating, keep regular heat, and exclude air and light.

If your correspondent desires to keep but a few for family use, any room in which the temperature is not allowed to fall below 40 deg. will answer, although there will be some smell from them, especially if they do not keep well. J. G. W. *Gloucester Co., N. J., Sept.* 7.

THE CULTIVATOR.

ALBANY, N. Y., OCTOBER, 1863.

☞ In pursuance of appointments previously made, we attended last week the Exhibitions of the Town Society of Gouverneur, St. Lawrence Co., and of Ellisburgh, Adams and Henderson, at Belleville, Jefferson Co.

Reaching Gouverneur Thursday morning, our first hour was devoted to a drive with Mr. Treasurer NORTON, about that thriving and pleasant village, behind one of those spirited and active "Black Hawks" of which so many have been bred in this excellent horse-growing region. Judge DODGE, President of the Society, was absent, but we passed through his neat and well shaded grounds,—which, like those of Messrs. ANTHONY and MILLER, the street in which Mr. NORTON himself resides, and one or two other localities, are attractive features in the place. On visiting the Show grounds, which occupy a central position, we found a large attendance present, and a show of great variety for the Agricultural Society of a single township. There were Short-Horns, Devons, and Ayrshires, or their grades, shown respectively by Geo. Lockie, Peleg Chamberlain, and A. Coolidge, Antwerp, in the first, Mr. G. Norton in the second, and Robert Dodds, C. G. Carpenter, and W. A. Paul, Rossie, in the third. The last named gentleman showed an Ayrshire cow which bore her first calf when only 1 yr. and 9 mos. old. Mr. Lockie was also an exhibitor of Sheep, and other entries in this department were made by Henry Haskins and Jas. Rutherford, including South-Down and Long-Wooled grades. The exhibition of Cheese, as might be expected, was large and good, including ten or fifteen exhibitors, among whom were Messrs. Francis Farmer, E. S. Smith, and L. J. Haile; Butter was shown by Wm. Sudds, Horace Parsons, Almond Smith, and others—Mr. Sudds also contributing Vegetables. A. P. Killmore showed a fine assortment of Potatoes, and G. G. Hilts a beautiful sample of black-eyed peas. Some very handsome Maple Sugar came from T. W. Vanderzee, C. G. Carpenter, Richard Parsons, and others whose names we did not learn, while preserves, flowers, etc., from Mrs. Crane, Miss Dodge, Mrs. Parker, and other ladies, added to the attractions of the building devoted to floral and miscellaneous purposes, which had been very tastefully adorned for the purpose at no little labor. A jet of water opposite the entrance produced a very pretty effect.

Messrs. Litchfield and Moore of Gouverneur, exhibited samples of a Scotch plow they make, which is quite popular in that vicinity, and looks as though it might do good work—also a sugar arch highly commended by those who have used it. There was to be a plowing match the following day which we did not see. The turn-out of Horses we understood to be good. This Society has now held its exhibitions five years, and we were glad to learn a most encouraging advance had been effected during that time, mainly prompted by its shows, in the character of the live stock of the Town as well as in Agricultural improvement generally. The day was a charming one, and the success of the Fair, we presume, as great as ever before.

On Friday we proceeded to Bellville, under less favorable skies, but fortunately just before the time of the address the clouds broke away, and the afternoon was pleasanter. The stock had all left the ground except the horses, of which there was a very large and good exhibition. This society has one of the pleasantest enclosures for its shows we have seen—the ground being well adapted for the purpose, and shaded along one side by a grove, which affords to both speaker and audience a delightful shelter. The officers of the society are DANIEL GREENE, President; T. O. Whitney and Sanford S. Thomas, Vice Presidents; V. C. Warriner, Secretary, and Col. C. Littlefield, Treasurer.

The general results of the season have been gratifying, both in St. Lawrence and Jefferson—although in the former some injury has been experienced from drouth. Jefferson county seems to have enjoyed a happy medium between the drier weather to the northward, and the frequent and annoying rains which impeded the operations of the farm to the south and east.

Arriving at Utica we found the preparations of the State Fair more nearly complete than we think we have ever before known them at the same time. Under the tireless energy of JOHN BUTTERFIELD, Esq., neither scarcity of labor nor difficulties of getting lumber have operated to retard or diminish the structures on the grounds—and they now present an appearance, from the Society's offices in front, to the stalls and pens in the rear, unsurpassed in in the history of the Society's exhibitions, and which must prove a pleasant and encouraging surprise to the thousands whom we hope to meet there the present week from all other parts of the State. L. H. T.

THE CROPS IN GREAT BRITAIN.—At last advices the harvest in Great Britain was well advanced, and the London Agricultural Gazette had published the returns obtained from its correspondents in all parts of that country. These returns are favorable, though not extravagantly large, for the crops in England, which, taken all in all, appear to be better than they have been for many years past. In wheat, especially, the yield has been extremely satisfactory, being in almost all cases—and the returns printed by our contemporary number hundreds—above average. There is every prospect, too, that the bounteous harvest will be got under roof in a satisfactory condition. Indeed, in many of the southern counties of England the crop is already safe. Barley and oats, though not affording ground for such flattering accounts, are still very good, both coming up to average. The late sown oats and barley, however, are deficient in some quarters, owing to the early summer drought. Beans and peas are generally good, but in the southern and south-eastern counties of England the former are not so strong. Root crops have been delayed in growth, for want of rain; and hay, through a like deficiency, proved a light crop, but it was well secured. Potato fields are almost all looking well, no disease being apparent, save in a few districts in Dorsetshire and Cornwall.

A couple of dozens of returns from about fifteen counties in Scotland speak of a somewhat varying condition of prospects. Wheat is generally about an average, rather above it in Fife and the Lothians. Oats are nowhere reported above, and in several counties considerably short of an average. Altogether, says the Scottish Farmer, in commenting on the returns referred to, "farmers have reason to be thankful that, if the harvest is not an overflowingly bountiful one, it is at least one sufficiently good to stave off the ruinous consequences that must have ensued to many had this season been as bad as last."

☞ Through seasons of rain and sunshine, of party strife or general quiet, of war or peace, the Agricultural Society of the State of New-York has now held its Autumn Meetings with varying success, but with undiminished interest, for a period of more than twenty years. Now one feature and now another, in its Exhibitions, has shown especial prominence; the attendance has sometimes been limited and sometimes very large; but, through all these years, the main object of the Society, the promotion of the Agriculture of the State,—particularly the improvement of its Domestic Animals, the increased perfection of its Implements and Machinery, the establishment of a higher standard in Horticulture—has been steadily adhered to; Farmers competing for its prizes or inspecting the progress shown in its exhibitions, feel that this purpose has never changed, and that the good resulting from its efforts, is evident, not less in the Show Grounds of every County and Local Society through the State, than in its own larger enclosure. And, in noting the occurrence of another "State Fair," attended probably by from forty to fifty thousand of our farmers and citizens, we look back upon a history which, as a whole, need shrink from comparison with that of no other association, voluntary in its nature, whether devoted to Agriculture, or Science, or the useful Arts,—either in this or other countries. This history, too, is one in which the State pride, as well as the personal interests, of our farmers is every year more and more involved; and the Rochester Meeting in 1862, amidst the constant clouds of an "equinoctial" week, and the Utica Meeting just closed, with its three days of clear blue sky and one of storm, have both proved that the prolonged continuance and all-engrossing nature of our great struggle to uphold the Republic, have not lessened the earnestness of our efforts to advance the great interest that has been our mainstay at home and abroad during the past three years, even more than at any former time since our government was founded.

The Exhibition at Utica, in some of its details, was less extensive than has frequently been the case. There were many causes conspiring to produce this effect, to which we need not allude at length. But in other respects—especially in the display of Agricultural Implements, which constituted its redeeming feature—it would compare well with any of its predecessors. In Live Stock, the Horses moreover, and particularly the horses of all-work, were probably never excelled. Of Cattle, the exhibition was rather a good, than a large one; the chief breeds were fairly represented, Short-Horns taking the lead very considerably; of Sheep, the remarkable display the year before, would have made anything less than an extraordinary turn-out, now, seem small in the comparison, but in the Fine-Wooled classes, the show was good, and the Middle and Long-Wooled pens included some very fine animals; of Swine, the Large breeds held their own, but the Small breeds staid at home. The Fruit and Floral tables were well filled. The Evening Discussions were well attended, and, one evening, absolutely crowded; and while less pointed in their results, and therefore less satisfactory in the perusal, and eliciting perhaps less information of permanent value, than may have once or twice occurred, were still listened to with attention, and will be productive of good.

The receipts show the attendance of large numbers, but were undoubtedly lessened from the fact that the ordinary burden of railway travel is this year so large as to tax the facilities of the roads almost to their full capacity, and consequently to reduce their power to accommodate the extra numbers called out by the State Fair. Hence we were continually hearing of crowds left behind at the various way stations in both directions from Utica. In former years, before the *through travel* became the great object of our railways, more was done in running extra trains and reducing fares, to draw out a full attendance, than is the case now; and while the receipts at Utica in 1852 were $8,125 against something over $11,000 this year, the price of admission then charged was only one-half the rate of the past eight or ten years, so that the number of tickets then sold must have been in fact considerably larger than now. We subjoin a statement of receipts since the present Treasurer has been in office:

Place.	Year.	Amount.
Syracuse,	1858,	$10,866.28
Albany,	1859,	18,111.33
Elmira,	1860,	9,041.70
Watertown,	1861,	7,899.90
Rochester,	1862,	11,271.45
Utica,	1863,	11,347.78

In our notices of the Fair Grounds already given, we mentioned the credit due to John Butterfield, Esq, for the efforts to which, in a great degree, the success of the present exhibition is to be ascribed. The buildings and fitting up of the grounds throughout, were all that could be desired, and received unlimited commendation. At a collation given by the Mayor and Common Council of the City, to the President and Executive Board of the Society on Thursday evening, these efforts were duly acknowledged, and Mr. Butterfield's recital, in response, of some of his experiences on this and other occasions, were received with great enthusiasm.

On pages 204 and 205 will be found the full Report of the proceedings of the week, and the Premiums awarded, so far as we have room to publish them in the present number. The remainder must be deferred until our next impression, including the Horticultural Department of the Exhibition. We also present this week a condensed report of the First Evening's Discussions, which will be succeeded hereafter by those of the following evenings. In the absence of our associate, Mr. Thomas, whose ill-health prevented his attendance, we were fortunate in being able to secure the assistance of our friend Joseph Harris, Esq., of the Genesee Farmer, in the preparation of these reports, for which our thanks should be tendered in connection with their publication.

As intimated above, the weather of Tuesday, Wednesday and Thursday was as bright as could have been desired; on Friday there was a drenching rain, and the grounds were almost absolutely deserted. Those who were present, however, and the number included many of the officers of the society, and other good judges, were greatly interested in a prolonged and careful trial of Sanford & Mallory's Flax Dressing Machine, which deserves especial mention here from the promise it affords of enabling any farmer to get his flax crop ready for market, independent of outside assistance. Mr. John Stanton Gould, Chairman of the Committee, informs us that the following experiments were tried:

Flax Thoroughly Retted by the Dew Process.

Breaking—20 pounds 1 ounce straw were broken by the machine in 3 minutes, 50 seconds—weight of product, 9 pounds. Scutching—roughed in 6 minutes, 10 seconds—finished in 2 minutes, 20 seconds—weight of final product, 4 pounds, 14 ounces.

Flax Half Retted by the Dew Process.

Breaking—10 pounds straw were broken in 2 minutes, 50 seconds—weight of product, 5 pounds. Scutching—roughed in 7 minutes, 15 seconds—finished in 2 minutes, 5 seconds—weight of final product, 2 pounds 3 ounces.

Flax Unretted as it came from the Field.

Breaking—10 pounds 3 ounces straw were broken in 2 minutes, 50 seconds—weight, 6 pounds 3 ounces. Scutching—roughed in 4 minutes, 10 seconds—finished in 1 minute, 50 seconds—weight of final product, 2 pounds.

The Capacity of the Sanford & Mallory Machines.

This was thoroughly tested, and found to be equal to breaking 2,500 lbs. per day in one breaking machine, with two hands and about three horse-power. Two scutching machines are required to scutch the product of the breaking machine—each of them employing one horse-power and two hands.

The success of these trials leads us to hope that new light is dawning upon the manufacture of Flax, and the full report of the committee, of which Mr. Gould is chairman, will be looked for with interest.

☞ We are indebted to L. F. ALLEN, Esq., Editor of the American Herd Book, for volume sixth of that work, just from the press. It is a book of 472 pages, containing about 2,500 pedigrees, while Mr. A. computes that if the degree of attention usual before the breaking out of the war, had been paid to the entries of stock, the number of pedigrees would probably have been fully 4,000.

The opinion has so often been expressed in these columns, that it is scarcely necessary to repeat it here, of the importance of this work to American breeders of Short-Horn Cattle. It is to be regreted that they have not shown as much interest as heretofore in recording in it the progress of their herds; but this, we believe, to be only a temporary lull. It is, moreover, occasioned mainly by the disturbed condition of the great Short Horn State of Kentucky, and by some diminution in the demand and reduction in the prices of pure-bred cattle at the West; for in this State and throughout the East generally, a gratifying advance is evident in the entries made, and in the number of breeders.

It is curious to note, by the way, how traces of the present war and its heroes, reach every pursuit among us, even to the naming of the cattle we breed. Thus, opening accidentally to the long list of Generals whose names, either with or without this military title, have been taken to adorn the register of our Short-Horn bulls, we find seven namesakes for Rosecrans, five for McClellan, four each for Grant, Burnside and Hooker, three for Halleck, two each for Pope and Butler, one each for Buel, Lyon, Siegel, Fremont, Reno and others, and among the chieftains on the other side, three "Stonewall Jacksons" and two "Stonewalls," and one each "Beauregard" and "Morgan." If the last mentioned individual had not been unfortunately interrupted during his northern tour, this summer, it would doubtless have afforded him great pleasure to carry back this evidence of Northern appreciation for his efforts in behalf of border agriculture. The typography of the present volume is all that could be desired, and the drawings on stone, by Mr. PAGE, numbering eight or ten, as well executed as ever.

FLAX AND HEMP.—The last Congress having appropriated $20,000 to be expended in testing the practicability of the introduction of flax and hemp as a substitute for cotton, the Commissioner of Agriculture has appointed Hon. J. Morehead, of Pittsburg, Penn.; Dr. Jno. A. Warder, of Cincinnati, and W. M. Bailey, of Providence, R. I., a committee to consider and report on the subject.

PERIODICALS.—The *Colonial Farmer* is the title of a weekly agricultural and miscellaneous journal, recently commenced at Fredericton, N. B. If the farmers of the Province give it proper aid by their contributions to its pages, and by their subscriptions, it will not fail to prove useful to them. C. S. LUGRIN, editor and publisher.

The Rural Advertiser is the title of a monthly 8-page quarto, issued by PASCHALL MORRIS, the well-kown implement and seed dealer, Philadelphia, at 25 cents a year.

GOOD PRODUCTS.—I would like to give you a little of my experience on various topics included in husbandry. Fisrt, I would mention a plum tree which we placed in our small orchard two years ago. It now measures 1¼ inches through at the ground, from which we gathered a a few days since, four quarts of nice plums. We also raised a parsnip measuring three feet eight inches in length, and potatoes weighing between 3 and 4 lbs. each, too numerous to mention. H. BAKER. *Brady, Mich.*

☞ A statement of the movements of the Wool Trade in England, comprising the Imports into and Exports from that country for the first six months of the present year, as compared with the corresponding period in the years 1861 and 1862, is published in the Mark Lane Express for August 10th. It shows that a much larger quantity of Wool has been brought into the United States for two years past, than probably many of our readers would suppose. We give the figures below:

Shipments of Wool from England to the United States for the first Six Months of the years 1861, 1862 *and* 1863.

	1861.	1862.	1863.
Colonial grown Wool,.. ...	55,119 lbs.	1,431,250 lbs.	2,289,660 lbs.
Foreign grown Wool,.....	72,190	1,793,890	5,587,848
English grown Wool, ...	39,721	813,941	571,668
Totals, ...	167,030	4,039,081	8,449,176

The English market for wool is now said to be "decidedly healthy; but the great abundance of wool operates against any advance in the quotations."

SARATOGA.—The Twenty-Third Annual Fair of Saratoga Co. was held at Saratoga Springs from the 1st to the 4th inst., and although not equal to those we have held, still it was a success, considering that we did not conclude to have one until after the 1st Aug., as the grounds were let for a soldiers' encampment, and as it was we had to give up the Floral Department. The receipts were $1,552.50; paid in premiums, $747.

Hons. Reverdy Johnson and A. B. Conger visited the grounds on Thursday, and as the orator appointed was sick, they accepted an invitation from the Society to address them on Friday. Mr. Johnson spoke on the state of the country, and Mr. Conger on agricultural topics; they were attentively listened to by all that could hear their voices. JAMES THOMPSON, *Cor. Sec'y.*

Rose Hill, Sept. 11.

NEW-BOOKS.—C. M. Saxton, 25 Park Row, New-York, has issued in very neat style the Essay on *Fine Wool Sheep Husbandry*, by HENRY S. RANDALL, L. L. D., read before the N. Y. State Agricultural Society, Feb. 12th, 1862, with an Appendix containing valuable statistics in reference to wool culture, imports, prices of fine wool from 1840 to Aug. 1, 1863, etc. Price by mail postpaid, 75 cents.

AG. STATISTICS.—The following I enclose as samples o the agricultural statistics collected in school district No. 2, Hartford, Washington Co., N. Y., by the undersigned:

Indian corn.....	157 acres.	6,481 bushels.	41 average.
Potatoes, ...	127 do.	14,178 do.	112 do.
Peas, ...	44 do.	890 do.	20 do.
Flax, ...	11 do.	23,400 lbs. straw.	2,127 do.
Oats, ...	190 do.	5,320 bushels.	28 do.
No. of hogs killed,.	105 do.	26,980 pounds.	256 do.
No. of loads barn yard manure, ...			2,082
Avails poultry, ...			$411
No. of apple trees, ...			1,528
No. of bushels apples, ...			3,194
No. of bushels dried apples, ...			96
No. of rods drain, ...			2,573
No. of rods open ditch, ...			3,313

GRENVILLE M. INGALSBE.

PROOF AGAINST SHEEP-KILLING DOGS.—It is said that conclusive proof against sheep-killing dogs may often be had by examining their mouths. Small pieces of wool will be found between their teeth for several days after they have been on a foray. They are cunning enough to wash off marks of blood, but cannot pick their teeth so readily.

Keep your garden clean. The long spell of mois weather has been a godsend to the weeds, making it necessary for gardeners to redouble their efforts to eradicate them.

STRAWBERRY CULTURE.

I wish to call attention to a mode of growing strawberries for those who grow in a small way for family use only. Prepare the ground well by deep plowing and pulverising well. With a one horse plow make small ridges 5 or 6 inches high, and about 3 or 3½ feet apart; set your plants on the apex of the ridges, and mulch heavily, sufficient to fill up the interval between the rows, so as to make it level; forest leaves are my favorite material for mulching, although straw, sorghum bagasse, spent tan, sawdust, or even cornstalks, will answer. The after culture consists in pulling out the weeds on the ridges occasionally, and cutting off the runners three or four times during the season. If it is desirable to increase the stock of plants, the runners will readily make very fine young plants on a mulching of leaves or straw partially rotted; the finest young plants I ever saw were grown in this way; stocky and well supplied with masses of long and fine fibrous roots. In this climate spring is by far the best and only proper time for transplanting.

The strawberry continues longer in bearing here than in the latitude of Chicago.

In growing strawberries largely for market the method of Mr. A. M. Purdy of Indiana, given in Co. GENT. for Aug. 6, is, in my opinion, an excellent one. We usually get three crops of berries from our plants before we plow them up, and I have no doubt but five or six good crops could be had by keeping the runners cut off, and cultivating thoroughly.

Merits of the Various Sorts.

Among some ten or more of the older well-known sorts which have been tested here, the Wilson stands pre-eminent as the best market sort, particularly as regards *productiveness* and *firmness* of berry; the latter quality being indispensable, as two-thirds of all the berries grown in Egypt are shipped to Chicago. Triomphe de Gand will bear handling, but gives us here but little more than half as many berries as Wilson, with same culture. Jenny Lind and Downer are both too soft to bear shipping well, neither do they yield as well as the Wilson.

Mr. S. E. Todd, in Co. GENT. for July 16, in speaking of Russell's Prolific, says, "I feel entirely safe in saying it is one hundred per cent. more productive than the far-famed Wilson." I think Mr. Todd was rather hasty in his conclusion regarding the comparative productiveness of the two sorts. Mr. Clapp, in his advertisement, speaks of having a plant of the Russell on which were counted 226 berries; this, of course, was one of his best plants, with best culture. Now I have seen many plants of the Wilson, as it is grown here, with from 200 to 260 berries on a single plant, and I doubt if there is any variety now known that will produce twice the *number* or *bulk* of berries than the Wilson as it grows here. To those who have not already a supply I would say, get some plants of Wilson's Albany, give them good culture, and my word for it, you will never regret the outlay. You can get plants of this valuable sort for 50 cent per 100, instead of $9. I can say for my part, that I have lost both time and money in sending for nearly every new variety of strawberry that I could hear of.

Will Mr. Russell, or Mr. Schuyler of Seneca Falls, answer as precisely as possible, through the Co. GENT., the following queries: How does Russell's Prolific compare with the Wilson as regards *firmness* of berry? What is the sex or sexuality of the Russell? Which of the two sorts commences sending out runners earliest in the season, and which makes the most young plants with the same culture? Will it bear the spring frosts after blossoming, without injury, as well as the Wilson? A. BABCOCK.

Union Co., Ill.

REMOVING ROCKS.

EDS. CO. GENT.—In your issue of August 13th, I notice an article copied from the Rural New-Yorker, on "Removing Rocks."

Perhaps I have disposed of more rocks lying on the surface of the ground, ten to one, than the person who wrote said article; at least I have cleared between fifty and sixty acres from boulders weighing from one-half a ton to twenty tons, and in places as many as twenty rocks to the acre, and think I ought to be able to speak from hard-wrought experience, for I have not hired Irishmen or ditchers to do the work, but with one strong-handed Yankee, a span of horses and myself, have worked it out.

I have dug under and sunk boulders, or as I used to say, "sold them;" but I have learned better. I can *blast, dig out, and draw off ten rocks on an average, where I can sink one, and the rocks are saved for fencing or building purposes.*

For a while I did my own *blasting*, but afterwards hired it done. I paid twenty-five cents a blast, and one blast is usually enough for a rock. Take a pick-axe and loosen the earth around the rock, put in the hole, charge and fire! and with a cant-hook, made on purpose, get under the pieces and throw them out; and then take another rock of equal size in the same soil and sink it, and see the difference.

I think, after said correspondent had sunk a rock in my orchard, measuring 28 feet long, 16 feet wide, and 8 feet above the ground, and perhaps more below, he would write no more articles on *sinking rocks.*

Springwater, N. Y. D. B. WAITE.

THE CURRANT WORM.

A writer in the Co. GENT. recommends three different remedies for the destruction of the worms so injurious to the currant and gooseberry, all of which are of doubtful efficacy; and it is a remarkable fact, that any horticulturist of the present day should not have met with the standard work of Dr. HARRIS, in which the most effectual application for this and many other insects injurious to vegetation, has been highly recommended and successfully practiced.

I allude to the whale oil soap, which, in some cases, I think is farther improved by the addition of tobacco. Fill a half barrel in which fish has been salted, with a strong suds, in which several pounds of the whale oil soap have been shaved down and dissolved by boiling with a pound of the tobacco called cut and dry. The tobacco leaves are to be strained out before using, to prevent them from obstructing the passage of the suds through the can or other instrument used. For the effective destruction of the slugs on the pear and cherry, strong suds without any addition, is all that is necessary, and is best applied by a common hand forcing pump of tin, with a fan-shaped piece of the same so adjusted at the nozzle as to scatter the stream in broad showers of spray on the leaves. For currants or other shrubbery, a common syringe with a similar scattering adjustment, will be the most convenient way of applying the suds. H. *Mifflin Co., Pa.*

Movements of Produce thus far for 1863.

The New-York Journal of Commerce publishes a statement of the movements of produce at the port of New-York up to September 1st this year, as compared with 1861 and 1862. We copy below the figures as to Breadstuffs, Provisions, and one or two other items. It will be seen that the Receipts show a falling off in flour and wheat, and a gain in oats and Indian corn. The receipts of oats for eight months have more than doubled upon the corresponding total for the last five years. In provisions there is an increase in pork, bacon, and lard, and a falling off in beef and butter, as compared with last year; but a large gain over any former year on record:

Receipts of Certain Articles of Domestic Produce at New-York during the first eight months of the year:

	1861.	1862.	1863.
Breadstuffs—			
Wheat flour, bbls.,	2,230,588	3,317,256	2,826,595
Corn meal, bbls.,	57,123	193,032	162,640
Wheat, bush.,	11,189,129	14,432,936	9,258,046
Rye, bush.,	406,884	789,594	311,430
Oats, bush.,	2,098,829	2,443,435	5,687,586
Barley, bush.,	659,386	795,421	485,718
Peas, bush.,	98,090	78,800	38,541
Corn, bush.,	8,243,007	9,030,934	10,393,219
Provisions—			
Pork, pkgs.,	77,160	289,433	384,098
Beef, pkgs.,	20,350	124,222	59,965
Cut meats, pkgs.,	67,998	272,432	427,834
Butter, pkgs.,	214,144	291,847	192,389
Cheese, pkgs.,	219,878	275,238	299,343
Lard, tcs. and bbls.,	68,446	310,059	361,334
Do. kegs,	28,673	71,225	34,651

The Exports of breadstuffs have been less in quantity than for the same period of last year, although still large, and swelling to a higher total in value on account of the increased price. In provisions, the most noticeable changes are the falling off in butter, (the total being less than two-thirds of the shipments of last year,) and the gain in cut-meats, even upon the large total shipped in 1862:

Exports from New-York to Foreign Ports of Certain Leading Articles of Domestic Produce for the first Eight Months of the Year:

	1861.	1862.	1863.
Breadstuffs—			
Wheat flour, bbls.,	1,712,131	2,132,968	1,701,358
Rye flour, bbls.,	8,911	6,156	4,385
Corn meal, bbls.,	74,231	99,645	94,760
Wheat, bush.,	13,763,792	13,654,417	10,830,752
Rye, bush.,	340,739	1,021,135	401,906
Oats, bush.,	143,864	39,943	113,147
Barley, bush.,	1,060	22,183	52,439
Peas, bush.,	100,678	93,484	73,200
Corn, bush.,	6,771,907	8,328,834	7,129,130
Candles, boxes,	54,861	96,669	86,901
Coal, tons,	18,287	62,001	32,436
Cotton, bales,	151,187	7,585	10,197
Hay, bales,	12,861	22,625	15,665
Hops, bales,	21,539	5,371	19,971
Oils, lard, galls.,	87,034	374,551	763,973
Linseed, galls.,	27,497	25,767	11,998
Provisions—			
Pork, bbls.,	69,262	136,482	131,332
Beef, bbls.,	20,571	27,083	28,592
Beef, tierces,	24,260	34,173	34,552
Cut meats, lbs.,	40,810,004	118,465,504	163,335,905
Butter, lbs.,	8,303,735	14,292,824	8,541,538
Cheese, lbs.,	16,484,188	20,555,493	21,017,300
Lard, lbs.,	30,385,422	93,603,780	92,586,027
Tallow, lbs.,	16,480,534	26,851,737	28,160,416
Tobacco, crude, pkgs.,	66,639	72,687	62,330
do. manf., lbs.,	2,730,043	562,389	1,955,733

"Opinions differ widely as to the prospective shipments for the remainder of the year. It appears to us to be a mere question of price. The harvests abroad are better than the average, and thus the consumers are much less dependent upon supplies from this country. Still, there will be a large deficiency in Great Britain to be made up, and this trade will come to us only in case that ours is the cheapest market. This will prevent any large increase in prices of breadstuffs during the year."

☞ Mr. H. B. SONTAG, near San Francisco, is going into tea-culture. He has put out one thousand plants, raised from seed obtained from China.

Inquiries and Answers.

HEN LICE.—My barn and stables have become badly infested with hen lice. Please what shall I do to get rid of them? WM. HUNT. *Park Co., Ind.*, 8 *mo.* 19, 1863. [Whitewash the walls and boards of the stable with a thin wash of fresh and caustic lime—applying a second coat if necessary—if the lice infest the horses, mix a spoonful of powdered sulphur daily with the feed. Washing with a thin solution of tobacco water has been recommended, and is no doubt efficient. In extreme cases a wash of corrosive sublimate might be applied to the cracks of the building.]

FARMING.—Will you be kind enough, for the benefit of young farmers, to publish in your paper, the best method of carrying on a 50 or 100 acre farm—what crops to raise, and the number of acres to each—quantity and number of stock to keep, and other details? I think hundreds would be much benefitted. C. N. B. [So much depends upon the location, soil, and amount of labor which is to be, or can be performed on such a farm, that no answer of any possible value can be given to this inquiry. At the same time our correspondent may consult Mr. THOMAS' Essay on Farm Management, published in vol. 2 *Rural Affairs*, (price $1,) to great advantage.]

CURING TOBACCO.—Will you inform me of the most practical way of curing one or two hundred stalks of tobacco, and oblige NASSAU. [Will some one who has had experience in curing tobacco in a small way, please answer.]

GRAFTING THE MAPLE.—I have once or twice asked for information through THE CULTIVATOR and received replies. One query was whether the Sugar Maple could be readily multiplied by any known method of engrafting? The reply in substance, I think, was this—"that very likely it could but that there was no need of that, as it could be propagated well enough without." This answer amused me a little, but was not quite satisfactory. I would, therefore, now renew the question. Can the Sugar Maple be readily multiplied by any known process of engrafting? I have often engrafted and budded the apple, the pear, and other fruit trees successfully, but could never get bud or graft to succeed with the maple, though repeatedly attempted. With the elm I know it can be done, as I have decided it by experiment myself. I fear it cannot be done with the maple, but am by no means certain. I wish this thing to be decided beyond doubt, and then, if the answer proves in the affirmative, if life, health and faculties are continued, I will endeavor to suggest something more on the subject, as I think it may possibly lead to important consequences both individually and nationally. ELISHA S. FISH. *Gilsum, N. H.*

BONE-DUST.—Will it pay to apply bone-dust to *light sandy soils?* I have 100 acres of such soil, too far from my barns to draw yard-manure, even if I had it to draw. Could I bring it into clover by an application of bone-dust or some other of the advertised fertilizers? S. FELT. *Jefferson Co., N. Y.* [This question can be determined only by experiment. The results vary with soil, locality, and other circumstances. If bone-dust can be had cheap, it will generally pay to apply. Our correspondent can procure some, and apply to a portion of his land, and measure and estimate the results.]

SHEEP BARN.—Can you or any of your correspondents furnish a good plan for a sheep barn, (with yards attached,) that will contain from 500 to 1,000 sheep, and their winter food? I desire to build and would be glad to have the best and cheapest plan? P. [We hope some of our wool growers will answer this call.]

PURPLE EGG PLANT.—How do you distinguish when the fruit is of a proper age to cook? How should it be cooked? CANADA. [In reply to this we copy the following from Buist's Kitchen Garden: "They are cut into thin slices and

fried, and have a taste very similar to oysters. Others use them in stews and soups. They are fit for the kitchen when they attain the size of a goose egg, and are in use till they become nearly ripe, which is easily known by the seeds changing to a brown color. Many individuals are exceedingly fond of them, while others will not taste them in any form."]

HORSES.—I have two valuable horses that are continually rubbing their manes and tales, until about one-half the hair is gone. Can you or any of your correspondents tell what will stop it? H. *Milton, Ky.*

COTSWOLDS.—Can any one in Western New-York furnish good Cotswold rams? Several could be sold by advertising in your columns. P. *Belmont, N. Y.*

FOREST LEAVES.—Will you, through the columns of your paper, ask some of your friends how to preserve forest leaves their natural colors? I have tried varnish and gum arabic, but have not been able to succeed. POWHATAN.

IS COCKLE POISONOUS?—Will you or some of your numerous correspondents, please inform me through your paper, whether cockle is poisonous or not? The reason I inquire is this: I raised a piece of wheat last season which was about one-fourth cockle when thrashed. I then had some of it ground into flour, but when we came to eat it, it made us all sick, more or less. We then cleared the cockle out of the wheat and fed it to our poultry; but the next morning we found four hens and one turkey dead, and all the rest very sick. It took them two weeks to recover. One of my cats eat some of the dead poultry, and she died. I had also a cosset lamb that ate some of it, and he died.

Tioga Co. N. Y. W. C. SMITH.

TO BREEDERS.—In your answers to correspondents, would you kindly suggest some means of reducing an overfat two year old Short-Horn heifer, so as to put her in proper condition for calving in December? She has been at grass all summer, and has received no other food. QUEBEC. [Will some of our correspondents please reply.]

ORCHARD GRASS.—I would thank you to inform me through your paper, as to the value of Orchard grass, either for hay or pasture. I am advised to sow it, as a means of getting rid of daisies, of which I have many on my farm and they are increasing, by being carted to the barns with the hay, and taken again to the fields in the manure. It is said that Orchard grass can be cut before the seed of the daisies ripen, and I am disposed to try it, but wish to know at what season of the year to sow it, and what quantity per acre, and if it requires rich land to make it take well, and if the hay is good for stock, &c. T. D. *Passaic, N. J.* [The Orchard grass is valuable for its earliness, for growing in the shade and in ground of moderate fertility. Being rather coarse it should be fed somewhat closely in order to prevent the formation of dry, hard stems; and for the same reason it should be cut earlier for hay than most grasses. It mixes well with red clover, both becoming fit for cutting about the same time. It may be sown early in autumn or early in spring, either alone or with grain crops; and its germination may be insured, and its early growth hastened, by spreading a dressing of old manure or compost over the ground and harrowing it well in the top soil before sowing. The seed being light and coarse, and weighing only twelve pounds to the bushel, two bushels per acre are recommended for a full seeding when sown alone, or in like proportion when mixed. We have observed that a dense growth of clover had a strong tendency to smother out the ox eye daisy, and Orchard grass, thickly sown, would doubtless produce a similar result, besides the preventive effect mentioned by our correspondent.]

DISEASE OF GRAPES.—What is the matter with my grapes? A large portion of them are bursting open, as shown by a few skins herewith enclosed. They are all cut or bursted in precisely the same way—that is, two lines at right angles to each other, thus ⊥. Thus far the Delawares are the only ones affected, but this may be because no others are so nearly ripe. W. M. D. *Circleville, Ohio, Aug.*, 1863. [The specimen sent, being only dried skins when they arrived, but little could be seen of their original appearance. We have not met with this disease in our experience, and call upon grape-growers for further information.]

STRAWBERRIES DESTROYED BY GRUBS.—The white grub has cut off my strawberries this summer. Cannot something be done to destroy this pest? J. B. S. [The best way is to dig out the grubs wherever their marks are visible and kill them. We have adopted this mode with much success, on some other crops, by offering boys so much a dozen for all they would catch, (in tin pails) and they soon cleared the plantation. It became quite an exciting game with them who should have the last grub.

HORSE POWERS.—Whose make of two-horse railway power, with thresher and cleaner, would you recommend me to purchase? W. J. B. [Either of those which are or have been advertised in this paper. They are all good.]

DISEASE OF APPLE TREES.—I am trying to raise some apple trees, and some of them have died this summer. What will prevent them from decaying? They first die at or near the ground. The bark slips off about a foot up from the ground, where the wood appears to be already rotten, after which the leaves begin to turn yellow, then in a few weeks the whole tree dies. E. S. R. *Mellville, Dade Co., Mo.* [We are not confident that we can tell our correspondent how to prevent this difficulty. The trees already injured, are, of course, past recovery. We would recommend budding or stock grafting one or two feet above ground—the propagation of the hardiest sorts, such as Winesap, White Winter Pearmain, Oldenburgh, Autumn Strawberry, Fall Orange, Red Astrachan, Carolina Red June, Maiden's Blush, Fallawater, &c.; and to plant only on dry soil. As the disease may arise from the effects of winter, winter mulching, or banking up with earth, may prove useful. Training the trees with low heads would be advisable.]

SHEEP.—I would like to make the inquiry of some of my wool growing friends, which is the most profitable breed of sheep about which we read so much in your paper? I have but a small farm, and do not wish to keep but a few, and those of the best quality. H. BAKER. *Brady, Mich.*

HARVESTING CORN.

As the saving of the crop of corn depends a great deal on the manner it is harvested, it is important that the farmer should see that it is well secured against wind and rain while standing in the stook. The following is my method: Cut six rows of corn in each row of stooks, commencing by cutting up the two middle rows, until you have a large armful, which set up between the two rows cut; tie the tops with a stalk, and set it down as you would a sheaf in setting up a shock of wheat. This is the centre of the stook, and is *not* to be tied around a hill. Now cut up the other four rows, and as far ahead of the stook as is necessary to make a good size stook, taking care to set the stalks up straight, and to keep the stook round When sufficiently large, tie snugly around the top, (not too near,) with a good band of rye or flax straw, and you have a stook that will stand the wind, dry out well, and when pulled down to husk, will leave no stalks standing, as is the case when set up around a hill, or four hills, as some recommend. E. S. BARTLETT. *Kendaia, N. Y.*

GUANO.—Save your poultry droppings; gather it up and put it in a barrel with a sprinkling of plaster, and you will find it valuable next year about corn planting time. It is the strongest kind of manure, adding greatly to the productive energies of the soil.

FRENCH'S NEW SEEDLING STRAWBERRY.

The undersigned has now ready for delivery, plants of this season's growth of this superior new Seedling Strawberry, either by the dozen or hundred.

It has been fully tested and proved to have those important requisites of a first rate market and table fruit. 1st. Extreme earliness, being the first in appearance in our market. 2d. Large size. 3d. A very free grower. 4th. Great productiveness, being a hermaphrodite variety. 5th. Fine quality. 6th. Attractive appearance.

For combination of these advantages, French's New Seedling Strawberry is believed to surpass any variety now in the market. Small packages sent by mail, without extra charge.

Price, $1.50 Per Dozen; $8 Per Hundred.

PASCHALL MORRIS, Agricultural Warehouse
Sept. 17—wtf—mlt. 1,120 Market-St., Philadelphia.

FRUIT AND ORNAMENTAL TREES.

WILLIAM ADAIR,

Detroit, Michigan,

Offers for sale a large and varied assortment of TREES, SHRUBS, VINES AND PLANTS. Particular attention is invited to the stock of PEAR TREES, both STANDARD and DWARF, which are all worked on the best imported French Stocks. Fifty Thousand saleable trees on hand.

GRAPEVINES.

Concord, Hartford Prolific, Diana, Delaware, Rebecca, Anna, Isabella, Catawba, Creveling, Rogers' Hybrids (10 varieties.) The Adirondac can be supplied in limited quantity (one year old plants,) the others by the dozen, hundred and thousand. Also a good stock of foreign vines grown in pots for cultivation under glass.

CURRANTS.

Versaillaise, Cherry, White Grape, Red and White Dutch, Victoria, Champaign, Gloire des Sablons, and others.

RASPBERRIES, BLACKBERRIES, STRAWBERRIES, GOOSEBERRIES.

EVERGREEN TREES—Several thousand of large size and fine specimens, viz., Norway, Black and Hemlock Spruce, Balsam Fir, European Silver Fir, Scotch, Austrian and White Pines Arbor Vitæ, Red Cedar, Sweedish Juniper, Savin, &c.

ROSES—Hybrid Perpetual, Moss, Climbing, Bourbon, Tea, Noisette, &c.

PÆONIES, DAHLIAS, GLADIOLUS, and other Bulbs.

GREEN HOUSE AND BEDDING PLANTS.

In short nearly everything desirable in the nursery line can be furnished, of good quality, and at moderate rates.

20,000 one-year old ANGERS QUINCE STOCKS. Address as above
Sept. 17—wztmlt.

BLOOMINGTON NURSERY, ILLINOIS.—

160 ACRES OF APPLE TREES,

BEST STOCK EVER OFFERED,

$30 to $60 Per Thousand.

Also PEARS, GRAPES and SMALL FRUITS, with a general assortment of ORNAMENTALS, NURSERY STOCKS, &c.

30,000 TULIPS, with HYACINTHS, CROCUS, &c. Plant in Fall. Send red stamp for Catalogue. F. K. PHŒNIX,
Sept. 17—w8t. Bloomington, Ill.

ADIRONDAC GRAPE.—

The earliest and best native grape, of the most delicate flavor, equal to the best Vinery Grapes, without pulp, and ripening two or three weeks before the Delaware.

2 year old	No. 1—very strong		$5.00
2	do.	No. 2—strong	4.00
1	do.	No. 1—very strong	3.00
1	do.	No. 2—strong	2.00

A few 3 years old, extra, with some wood left for fruiting the first year, $10 each.

Vines will be packed in the best manner and forwarded by express or small vines by mail, if desired. Apply, with remittance, to
JOHN W. BAILEY,
Sept. 3—w6t. Plattsburgh, Clinton Co., N. Y.

EVERGREEN TREES.—

The undersigned offers

10,000 EXTRA SIZED AND WELL FURNISHED

Norway Spruce, Scotch Fir, and White or Weymouth Pines, from 6 to 16 feet high, at low prices, in lots of 100 and upwards.

September being one of the best months in the year for transplanting, purchasers will do well in taking advantage of the above offer.

Orders addressed to the subscriber, at the Astor House, New-York, or at Harrison, Hudson Co., N. J., will be promptly attended to.
SAMUEL C. PITMAN,
Sept. 10—w4t. Newark Nurseries, N. J

20 HEAD OF ALDERNEY CATTLE AT PRIVATE SALE.

Eighteen Cows, Heifers and Calves, and 2 Bulls, bred from importations of the late John A. Taintor, and

WARRANTED FULL BLOOD.

Color mostly fawn and white, and French grey. They are superior animals, and at reasonable prices. WALLACE BARNES,
Location ¼ mile west of Railroad Depot, Bristol, Conn.
Sept. 17—w4tmlt.

PURE BRED LOP EARED MADAGASCAR RABBITS.

The undersigned having increased his pure stock of the above breed, is now prepared to execute orders, which will be carefully boxed, and delivered in Philadelphia. Address
FRANCIS MORRIS,
Sept. 10—w&mtf. Box 1652, Philadelphia Post-Office.

J. C. TAYLOR, Holmdel, N. J., Breeder OF WEBB SOUTH-DOWN SHEEP,

Would inform his old customers, and others, that he has a very superior lot of yearling rams, 50 ram and ewe lambs, besides a few breeding ewes, to dispose of at private sale. Also 5 stock rams to rent. Please send for circular for particulars.

N. B.—Persons leaving New-York or Philadelphia at 6 A. M., on Camden and Amboy route to Freehold, can reach my place by 11 o'clock, so as to return to either city the same evening.

Boats leave foot of Robinson-Street, New-York, for Keyport and Holmdel route at 4 o'clock P. M. Aug. 1—w&mtf.

IMPROVED SHORT-HORNS FOR SALE.—

The subscriber, wishing to reduce materially the number of his herd, offers for sale at low prices, BULLS, BULL CALVES, COWS and HEIFERS, all having

GOOD PEDIGREES.

A Catalogue will be sent, with prices marked, to any one desirous of purchasing.

Apply at Ellerslie Farm, one mile south of Rhinebeck Station, Hudson River railroad, or by letter addressed to
May 14—w&mtf. WILLIAM KELLY, Rhinebeck, N. Y.

PREMIUM CHESTER COUNTY WHITES.—

THOMAS WOOD

Pennington ville, Chester Co., Pa.,

Continues to ship to any part of the Union these celebrated HOGS in pairs not akin, at reasonable terms. April 16—w&mly.

IMPROVED SHORT-HORNS FOR SALE.

The subscriber, wishing to reduce the number of his herd, will sell at AUCTION, at the Hamden County Fair, in Springfield,

On the 6th, 7th and 8th of October,

the following Stock of 7 Cows, 1 three-year old Bull, 1 yearling Bull, 3 Bull Calves and 2 Heifer Calves. Sale of the above at noon on the 7th. Pedigrees approved by the cattle Breeders' Association.

Also on the 8th, at noon, the celebrated stallion TIPPOO. The above will be sold to the highest bidder, without reserve.

At private sale, 50 or 60 improved Chester County Pigs, with 15 or 20 breeding Sows.

Orders for any of the above will receive prompt attention.
WILBUR WILSON
Sept. 17—w3t. Agawam, Hamden Co., Mass.

IMPROVED STOCK FOR SALE.—

SHORT-HORNS,

COWS, HEIFERS, BULLS AND BULL CALVES.

ALDERNEYS.

SHEEP---Cotswolds, and a few Spanish Merinos and Shanghais.

SWINE---Berkshire and Essex.

This stock is all of the first class—the Short-Horns Herd Book animals. My place is five miles from the Railroad Station at Hudson
Address SAMUEL M. FOX, Manor House,
July 30—wtf. Livingston, Columbia Co., N. Y

THOROUGH-BRED SHORT-HORNS FROM THE GROVE HERD.

A Few Cows, Heifers and Bull Calves

from this old established herd, got by Lord Oxford, 3089, Imperial Duke, (18083,) and other first class bulls, for sale on moderate terms

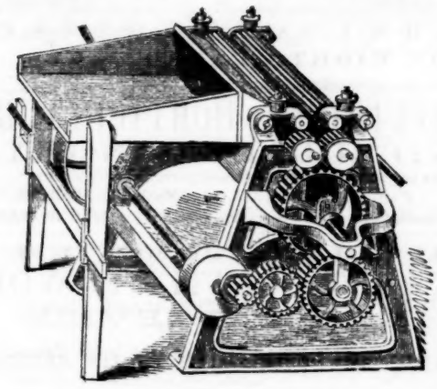
ALSO A FEW SUPERIOR ALDERNEYS.

Apply to FRANCIS M. ROTCH,
Feb. 26—wtf. Morris, Otsego Co., N. Y

MALLORY & SANFORD,
CORNER WHITE & CENTER-STS.,
NEW-YORK.

FLAX AND HEMP DRESSER.

SEND FOR A DESCRIPTIVE CATALOGUE.



MALTA, SARATOGA CO., N. Y., Aug. 10, 1863.

MESSRS. MALLORY & SANFORD:

Gentlemen—On the 19th day of March we drew to the mill of N. G. Akin, thirty-nine hundred and thirty (3930) pounds of flax straw, which he dressed through the old Brake, and we received four hundred and eighty-one (481) pounds dressed flax.

We about the first of June, drew to the mill of Wm. H. Buckley forty-four hundred and ten (4410) pounds of flax straw, which was dressed through one of your Patent Flax Brakes; we received eight hundred and five (805) pounds of dressed flax.

The flax was grown on the same piece of land, and there was no perceptible difference in the quality of the flax, except that the portion drawn to Akin's mill was rotted in the fall of 1862, and that drawn to Mr. Buckley's mill was spring rotted, which is considered not so good, from the fact that it loses part of the oily matter from the fibre, and does not yield as much per ton of straw as the fall rotted.

You will perceive by the above statement that we received from Mr. Akin's mill 245 pounds nearly of dressed flax per ton of straw, and from Mr. Buckley's mill 365 pounds of dressed flax per ton, which makes a difference of 120 pounds per ton in favor of your Brake.

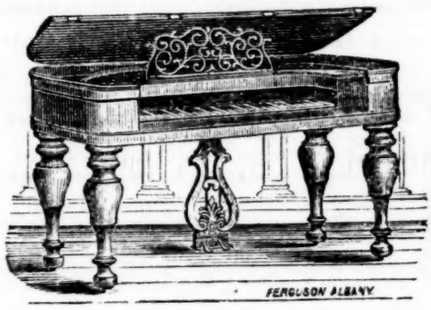
We are recommending our neighbors to take their flax to one of your Brakes to have it dressed, although it is 15 miles to the nearest one at present.

J. B. WEEKS.
L. L. WEEKS.

I certify that the above statement is correct, as I saw the weighers' receipts for both lots of straw, and weighed the dressed flax myself that was dressed at my mill. The flax dressed at Mr. Akin's mill is correct, no doubt, as the above gentlemen are perfectly reliable.

Aug. 27—weow2tm3t. WM. H. BUCKLEY.

BOARDMAN & GRAYS'
PATENT IMPROVED
INSULATED IRON RIM AND FRAME



PIANO FORTES.

MANUFACTURED BY
WILLIAM McCAMMON,
(Successor to BOARDMAN, GRAY & Co.)
Albany, N. Y.

☞ Send for illustrated price list. Nov. 27—w&mtf.

AGRICULTURAL AND HORTICULTURAL Books for sale at this office.

THE GREAT WANT SUPPLIED.
FAMILY
WINE & CIDER MILL
WITH PRESS COMBINED.
(Hutchinson's Patent.)

Costs but $18. Grinds 6 to 8 bushels of APPLES, 10 to 12 bushels of GRAPES or CURRANTS per hour.

The machine, excepting the curb is made wholly of iron, prepared so that it does not affect the juice.

It is easily handled and worked by one man, and takes up no more room than a chair.

A large number have been sold, and WITHOUT EXCEPTION give perfect satisfaction.

The Mill and Press complete, with a pamphlet containing full directions to make Wine and Cider in the best manner, will be forwarded upon receipt of the price, $18, by

J. B. BROWN & CO,
Peekskill, N. Y.

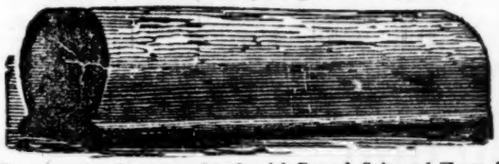
Manufacturers of the celebrated Peekskill Plows, best Iron Beam Plows, Land Rollers, and other Agricultural Implements.

Send for Illustrated Circular.

Mills forwarded from New-York if desired. As the demand is certain to be large, orders should be sent in as early as possible.

July 23—Aug. 27—Sept. 17.

NEW-YORK STATE TILE WORKS,
NEAR THE CORNER OF
LARK & LYDIUS-STREETS, ALBANY, N. Y,
WM. M. BENDER, Proprietor.
GEO. JACKSON, Superintendent.



The subscriber is prepared to furnish Round, Sole and Horse-Shoe Tile, over 13 inches in length, by the cargo, or in the smallest quantity on demand, at prices that he will defy any other parties to undersell him. He will warrant his tile hard burnt, and to fit close at the joints, and altogether superior to any made in the United States.

All tile delivered on board of cars and boats in this city free of charge. Price list sent on application.

N. B.—Drainage to any extent and at any place done by contract and tile furnished for the same.

Also DRAINING TILE MACHINES for sale of the latest improved Patterns. For further particulars address as above. Ap. 9—w&m.

QUINCY'S ESSAY ON THE SOILING OF CATTLE, giving full directions for the care of cattle by this method. Price 50 cents. For sale by
LUTHER TUCKER & SON, Albany, N. Y.

CONTENTS OF THIS NUMBER.

THE FARM.

Suggestions for the Season, ... 297
Stacking Corn Fodder, by F. C. W., ... 299
To Prevent Posts Heaving by Frost, ... 300
How to Clean Clover Seed, ... 300
Importance of Farm Machinery, ... 301
Sowing Clover Seed, ... 301
Gathering and Saving Clover Seed, by H. P. B., ... 307
New-York State Fair at Utica, ... 308
Cultivation of the Onion, by W. B. KING, ... 315
How to Select Seed Corn, by H. E. OLINGER, ... 315
Bullard's Hay Tedder, by E. P. HAYNES, ... 315
Discussion on Manures at the N. Y. State Fair, ... 316
Field Culture of Beans, by F., ... 318
Agricultural Education, by D., ... 319
How to keep Sweet Potatoes, by G. W., ... 319
Notes for the Month, ... 320
Removing Rocks by Blasting, by D. B. WAITE, ... 323
Movements of Produce thus far for 1863, ... 324
Inquiries and Answers, ... 324
Harvesting Corn, by E. S. BARTLETT, ... 325

THE GRAZIER AND BREEDER.

Sheep Marking—Ticks, &c., by DAVID STREET, ... 299
Keeping Cattle, Horses and Sheep Together, by C. T. ALVORD, ... 302
Sale of South-Downs at Thorndale, ... 305
Table of Gestation of Animals, by QUEBEC, ... 307
Thorne's South Down Ewes, ... 313
Weaning Lambs, by W. F. BAGGERLY, ... 318

HORTICULTURAL DEPARTMENT.

Transplanting and Culture of Strawberries, ... 298
Pruning the Raspberry, ... 299
Marketing Fruit, ... 303
Planting Strawberries, by H., ... 304
The Currant and Gooseberry, by H., ... 310
A House to Dry Fruit in, by H. P. B., ... 310
How to Destroy Currant Worms, by J. T. ADDAMS, ... 311
Difference in the Culture of the Pear, ... 314
Root Pruning Trees, ... 314
The Concord Grape, ... 314
Ichnenmon Flies, by H. P. B., ... 314
Culture of the Blackberry, ... 315
Strawberry Culture and Merits of Different Sorts, by A. BABCOCK, 323
The Currant Worm, ... 333

THE DAIRY DEPARTMENT.

The Dairies of Orange County, ... 302

THE BEE-KEEPER'S DEPARTMENT.

Bottom Boards, Moth Traps and Bee Stands, by L. L. FAIRCHILD, 306
A Safe and Easy Method of Swarming, by C. W. TAYLOR, ... 311

THE POULTRY YARD.

History of the Cayuga Black Duck, by C. N. BEMENT, ... 312

DOMESTIC ECONOMY.

Canning Green Corn, by L. BASSETT, ... 301
Sorghum Cake, by FANNIE, ... 307
Remedy for Cramp in the Stomach, by JACOB FRITZ, ... 315
Remedy for Ivy Poison, by W. H. BENSON, ... 315

ILLUSTRATIONS.

Fences and Fence Posts, ... 300
Packing Fruit, ... 304
Sheep Pens, ... 305
Cayuga Black Ducks, ... 312
Thorne's South Down Ewes, ... 313

NEW PHILADELPHIA RASPBERRY.—After the 10th of 10th month (October) we shall have ready for sale and shipment, genuine, well rooted plants of the above, by the dozen or hundred.

From its great hardiness, extraordinary productiveness and fine flavor, it promises to be the leading Raspberry for market or private gardeners. Price, $2.50 per dozen, $15 per 100.

PASCHALL MORRIS,
Agricultural and Seed Warehouse,
Oct. 1—w&mtf. 1,120 Market-St., Philadelphia.

A SPLENDID VIEW OF THE FAIR GROUNDS OF THE NEW-YORK STATE AGRICULTURAL SOCIETY, AT UTICA. Size, 15 by 24 inches, printed in colors. Copies sent by mail, postage paid, upon the receipt of 25 cents. Address LEWIS & GOODWIN,
Sept. 24—w1t. 452 Broadway, Albany, N. Y.

FIRST CLASS APPLE TREES
At $10 Per Hundred.
Sept. 24—w4t. A. M. WILLIAMS, Syracuse, N. Y.

200,000 APPLE, PEAR, ANGERS QUINCE, MAHALEB, PARADISE, and other Stocks. Strong EVERGREENS and ORNAMENTAL TREES and SHRUBS. Carriage paid to New-York. Catalogues now ready.
Sept. 24—w4t. B. M. WATSON, Plymouth, Mass.

60000, ONE YEAR OLD CONCORD GRAPEVINES,
From cuttings.

No. 1,	$8.00 per 100	$70.00 per 1,000
No. 2,	6.00 do.	50.00 do.
No. 3,	—	40.00 do.

GEO. SEYMOUR & CO.,
Sept. 24—w3t. South Norwalk, Conn.

THOROUGH-BRED SHEEP FOR SALE.—I will sell sixteen 2 and 3 year old Bucks, in good condition for the Eastern or Western markets. Also ten of my old breeding Ewes. The above sheep are pure blood Atwoods.

Any one wishing to start a pure blooded flock, will find this a rare chance. For particulars inquire of COL. H. H. MERRITT, of this place,
N. T. SPRAGUE, JR.
Sept. 24—w3tm1t. Brandon, Vt.

RURAL ADVERTISER,
OF EIGHT QUARTO PAGES,
A MONTHLY PUBLICATION, DEVOTED TO
AGRICULTURE, HORTICULTURE, AND RURAL ECONOMY.
At 25 Cents per annum, payable in advance. Published by
PASCHALL MORRIS, 1,120 Market-St., Philadelphia.
Where subscriptions will be received. Sept. 24—w&mtf.

ALL HAIL THE TRIUMPH THAT
FICKARDT'S CATTLE POWDER
HATH ACHIEVED!
THOUSANDS ARE TESTIFYING TO ITS EFFICACY.

"The Merciful Man is Kind to his Beast."

AFTER years of study and experiment by the inventor, to compound from PURE VEGETABLE MATERIALS a Powder that SHOULD and MUST take the place of the thousand and one nostrums gotten up and palmed upon the public as "CERTAIN REMEDIES" for the cure of al diseases which the brute creation are "heir to," he has produced the one heading this advertisement, and none CAN BE GENUINE unless bearing our FAC SIMILE signature. The demand has been such that its sale has been chiefly confined to the State of Pennsylvania, but we have now consummated such arrangements that we are prepared to supply the numerous orders now on hand, as well as those we may hereafter receive from other States of the Union.

Knowing this powder to possess all the curative properties here set forth, we deem a fulsome tirade of words unnecessary, feeling assured that its OWN MERITS will secure for it a ready sale. Being composed of pure vegetable ingredients, it can be safely and judiciously given to that noble animal the HORSE. Its effects are no FALSE PAMPERING of the system, creating a bloated carcass with a premature shedding of the hair; but on the other hand, it strengthens the digestion, purifies the blood, regulates the urinary organs, thereby improving and protecting the whole PHYSICAL condition of the animal even when in an apparently healthy state.

To the Agriculturist and Dairyman it is an invaluable remedy for their NEAT CATTLE laboring under HOOF diseases, HOLLOW HORN, and other of the many complaints to which they are liable from a suppression of the natural secretions.

MILCH COWS are much benefitted by occasionally mixing with their slop or feed—it has a tendency to strengthen the animal, remove all obstructions from the milk tubes, promote all the secretions, and consequently adding much to the strength of the animal, quantity and quality of the Milk, Cream and Butter.

HOGS, during the warm seasons, are constantly overheating themselves, which results in their getting Coughs, Ulcers of the LUNGS and other parts, which naturally has a tendency to retard their growth. In all such cases a tablespoonful mixed in a bucket of swill and given every other day will speedily remove all difficulties, and the animal WILL SOON INCREASE IN HEALTH AND FAT.

☞ For sale by all Druggists and Dealers. Price, 25 cents per package.

AGENTS.—LANE & PAINE, 18 Buffalo-Street, Rochester, N. Y.; D. S. BARNES & Co., 202 Broadway, New York; and DYOTT & Co., No. 232 North Second-Street, Philadelphia. July 2—w&m6mos.

CRAIG MICROSCOPE.

This is the best and cheapest Microscope in the world for general use. It requires no focal adjustment, magnifies about 100 diameters, or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2.25, or with six beautiful mounted objects for $3, or with twenty-four objects for $5. Address
HENRY CRAIG,
180 Center Street, New-York.
A liberal discount to the trade.
Retailed in Albany by GEORGE F. UDELL, 536 Broadway, and by BENJAMIN MARSH, 34 State-Street. In Troy by YOUNG & BENSON. April 2—w&m1yr.

BEES AND BEE KEEPING—A Plain, Practical Work, with directions how to make Bee-Keeping a Desirable and Lucrative Business, and for Shipping Bees to California. By W. C. HARBISON. Price $1, by mail post paid. For sale by L. TUCKER & SON, Co. Gent. Office, Albany, N. Y.

AMERICAN WEEDS AND USEFUL PLANTS—Being a 2d and Illustrated edition of Agricultural Botany: an enumeration and description of useful plants and weeds, which merit the notice or require the attention of American agriculturists. By Wm. Darlington, M. D. Every Farmer or Farmer's Son who wishes to know the names and character of the plants growing on his farm should study this book. For sale at the office of the Co. Gent. and Cultivator. L. TUCKER & SON.